PLUS 7

EN TECHNICAL MANUAL

TECHNICAL INSTRUCTION

La San Marco S.p.A.

PLUS 7

EN ENGLISH

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INTRODUCTION AND GENERAL INSTRUCTIONS

Thoroughly read the instructions contained in this booklet because it gives important information regarding safety for installation, use and maintenance.
Keep this booklet in a safe and accessible place for further consultation.
This is a commercial appliance and must be installed and serviced only by La San Marco Spa. Authorised personnel.
This machine must be used only for the purpose it was designed:
dispensing coffee, cappuccino and pouring hot water
Any other use is to be considered inappropriate and therefore dangerous.
The manufacturer declines all responsibility for damage caused by any improper, incorrect and unreasonable use of the machine.
The use of any electric appliance implies the observance of some fundamental rules.
More specifically:

- do not touch the appliance with your hands or feet wet or damp
- do not use the appliance with bare feet
- do not pull the power cord to disconnect the plug from the power socket
- do not leave the appliance exposed to the weather (rain, sun, frost)
- do not let children or untrained persons use the appliance.

Before carrying out any cleaning and maintenance, disconnect the appliance from the power supply, pulling the plug from the power socket and turning off the main switch.
In case of failure or malfunction turn the machine off and do not attempt to carry out any repairs or direct operations on the machine.
All repairs must be carried out in a La San Marco Spa. Authorised Service Centre, using original spare parts only.
Failure to comply with the above recommendations will compromise the safety of the machine and the warranty conditions.
If this machine is no longer used, we recommend that it is made inoperative by disconnecting the power cord and water tube from the power supply, and all potentially dangerous parts are made harmless, especially to protect children who might use the machine for their games.

INSTRUCTIONS FOR INSTALLATION

Installation must be carried out according to the manufacturer's instructions.
An incorrect installation can cause damage to persons, animals or things; the manufacturer declines all responsibility for such situation.
After unpacking check that the machine is not damaged.
If in doubt, do not use the machine and contact a La San Marco Spa. Authorised Service Centre.
All packing materials (plastic wrapping, polystyrene, nails, etc.) are potentially dangerous and must be kept out of children's reach and disposed of in a safe manner for the environment.
Before connecting the machine to the power supply make sure that the rating information of the machine correspond to that of the power supply: if the power socket is not compatible with the plug of the machine (if supplied), replace the socket with a proper one, ensuring that the size of the cable is suitable for the absorbed power of the machine. If you replace the power cord, use an H07RN-F cord again.
Make sure that the voltage rating of the machine corresponds to that of the power supply, and that the power supply is adequate to additional power absorption of the machine.
After installing the main switch and fuses (see annex), connect the power cord of the machine to the main switch according to the attached electrical diagram.
The use of adapters, multiple power boards and extension cords is not recommended.
If it is absolutely necessary, then use only single or multiple adapters and extension cords which comply with current safety regulations, ensuring also that the electricity load capacity of the single adapters and extension cords and the maximum power rating of the multiple adapters is suitable.
The electrical safety of this machine can be guaranteed only if correctly connected to an efficient earth circuit as indicated by current electrical safety regulations.
It is necessary to check this fundamental safety prerequisite, and in case of doubt, ask a professionally qualified technician to check the circuit.
The manufacturer declines all responsibility for any damage caused by failure to earth the machine.
In order to avoid any dangerous overheating, we recommend that the power cord be fully unwound.
The power cord of this machine must not be replaced by the customer.
In case of damage to the cord, contact exclusively a La San Marco Spa. Authorised Service Centre.
Do not leave the machine connected unnecessarily.
Turn off the main switch of the machine when not in use.
Do not cover the ventilation openings of the machine.
Place the machine at an adequate distance from walls, objects, etc.
The machine must be connected to a system with a water pressure, which is not greater than 5 bar. (Kg/cm2).
If the pressure is greater, a pressure reducer must be installed.
Install a water softener above the machine.
ENVIRONMENTAL CONDITIONS TO USE THE MACHINE
Environmental temperature: 5 – 45 °C (empty the hydraulic system in case of freezing)
Maximum humidity: 80% relative humidity
Water hardness: 5° eh, 7° dH, 13° Fh

SPECIAL INSTRUCTIONS FOR USE AND MAINTENANCE

For a correct functioning of the machine it is fundamental to comply with the manufacturer's instructions, having qualified personnel to carry out ordinary maintenance and to check all safety devices.

Avoid exposing hands or other parts of the body to the coffee dispensing spouts or to the hot water nozzle. The water from the nozzle is very hot and can cause severe burns.
The water nozzle is very hot and therefore must be handled with care, holding it in the appropriate point.
Do not use the machine without water.
Do not leave the machine in rooms where the temperature is below zero °C or 32 °F without having first drained the boiler and the hydraulic circuit.
A softener needs to be used where the water is very hard and where the calcareous scaling is particularly extensive.
In any case, regularly check the boiler even where the water is not very hard, and if necessary, have the resistors and tubing descaled by specialised technicians.

Failure to clean La San Marco Spa. machines daily, especially for brewing unit and milk frother, using approved cleaning products and following specified cleaning procedure will result in void warranty and service contract.

NOTE:
A) THE REGISTRATION AND TECHNICAL DATA PLATE OF THE MACHINE IS BEHIND THE GROUND BIN.
B) THE EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

GENERAL CHARACTERISTICS

Number of coffee dispensing groups	1
Number of milk frother	1
Number of grinders	1 or 2
Number of product containers/mixer	1
Hot water dispenser	1
Maximum quantity of dispensable drinks per minute	4 Espressos - 2 Large Coffee - 2 Large Cappuccinos - 2 Large Chocolate - 2 Tea cups
Hot water capacity per hour (lt)	30
Machine width (mm)	325
Machine height (mm)	814
Machine depth (mm)	561
Net weight (Kg)	50
Coffee hopper capacity (gr)	1300
Instant canister capacity (lt)	4
Coffee Boiler capacity (lt)	1
Steam Boiler capacity (lt)	1,8
Coffee Boiler resistor (W)	1800
Steam Boiler resistor (W)	2000 (Optional 2800)
Voltage (V)	100V-1+N – 50/60Hz 120V-1+N – 50/60Hz 200V-1+N – 50/60Hz 220V-1+N – 50/60Hz 230V-1+N – 50/60Hz 240V-1+N – 50/60Hz 230V-3 – 50/60Hz 400V-3+N – 50/60Hz
Brewer group resistor PTC (W)	70

MACHINES IN SELF CONFIGURATION (see exploded view manual for code number)
Functions are absent or disabled by software:
- steam wand: absent
- extra milk function by pushing the cappuccino/latte dose key: disabled by sw
- function to stop the dose delivery by pushing a dose key: disabled by sw
- function to switch off the machine by pushing Shift and then Info keys: disabled by sw

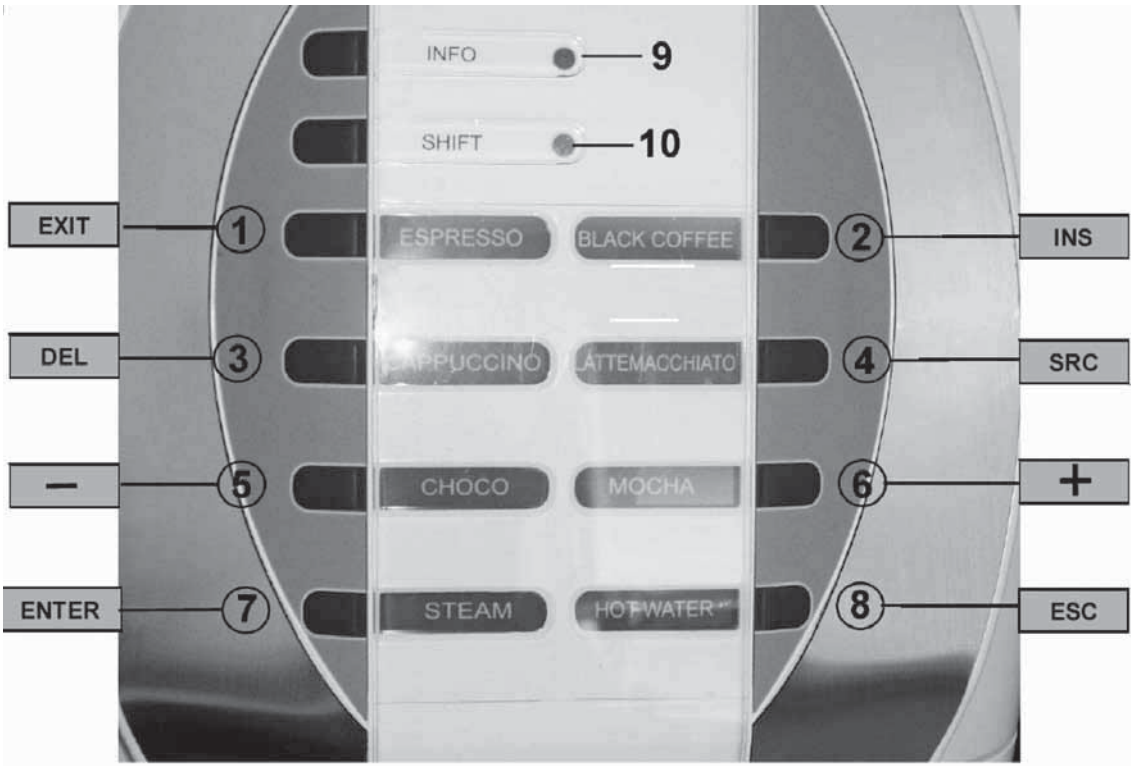
Included features:
- Kit to block the drip tray
- Kit to block the decaf door

Recommended optionals:
- Lock for beans hoppers and product canisters

- Lock for the coffee grounds bin, placed instead of the missing steam wand OR
- Direct coffee grounds.

Materials used:
- Stainless steel for boiler
- Teflon/Copper for hydraulic tubes
- Aluminium with stainless steel lining for the brewing group
- Plastic for grinder with conic grinder blades
- Other accessories in food plastic which are in contact with the ground coffee or drink
- Plastic for working area and cups tray
- Painted metal or stainless steel for machine body.

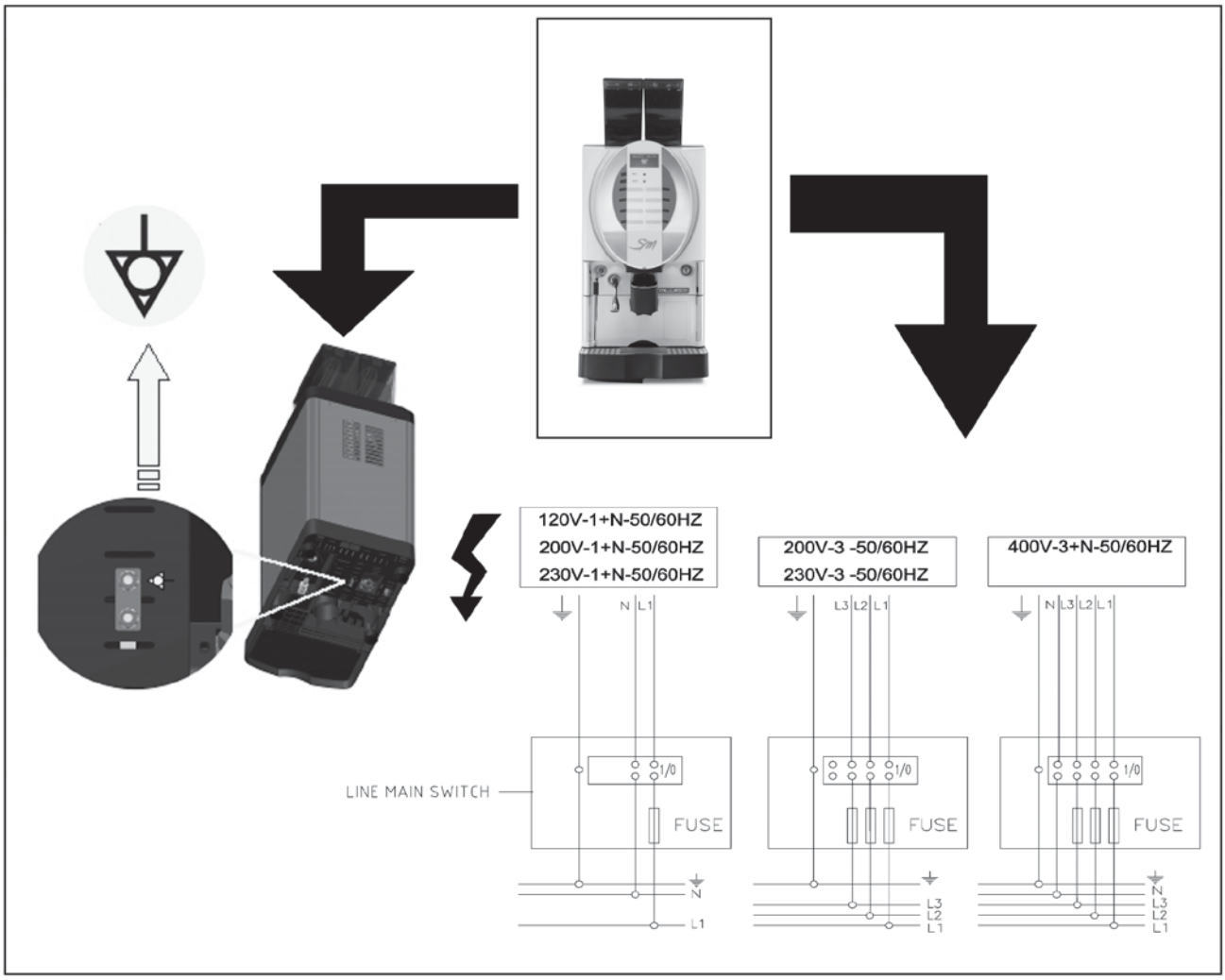
MACHINE KEYPAD

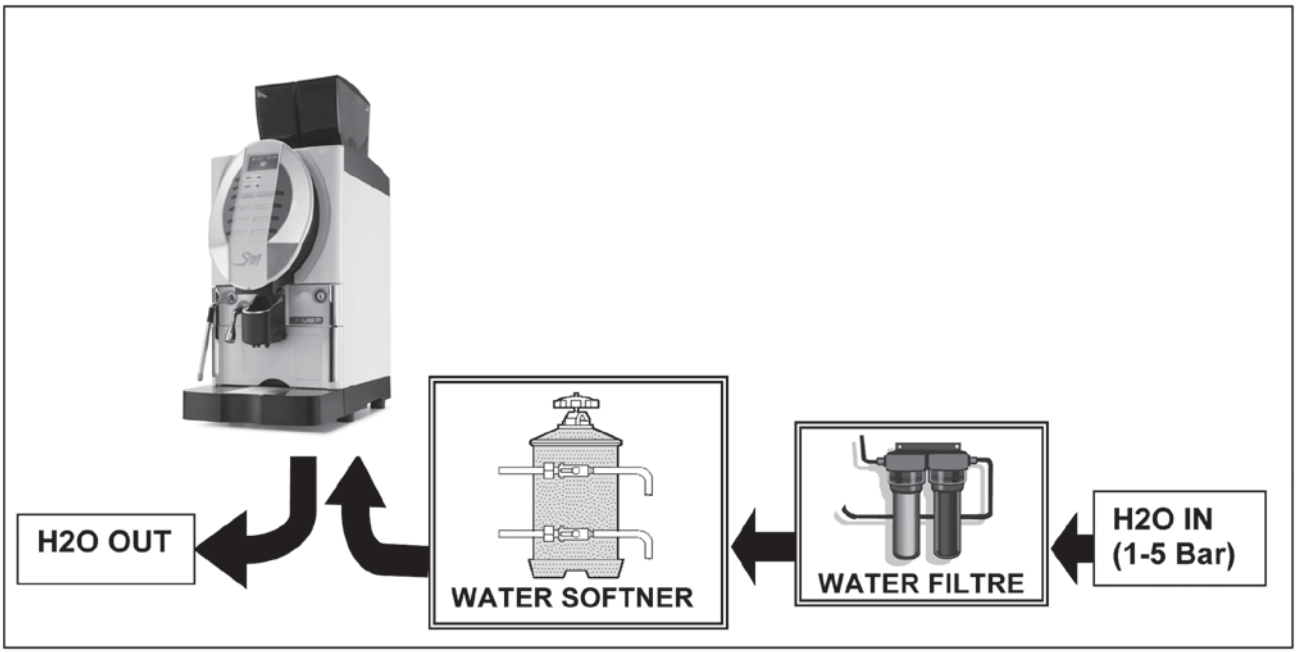


PLEASE NOTE THAT THE FOLLOWING FUNCTION ARE REPLICATED BY THE SERVICE KEYPAD AND THE DOSE KEYS: ENTER , ESCAPE, +, -, THE CHART BELOW SHOWS ALL FUNCTIONS KEYS.

KEY REFERENCE	FUNCTION
1	**EXIT** (edit) / Espresso
2	**INS** (Insert blank) / Black coffee
3	**DEL** (Delete character) / Cappuccino /
4	**SCROLL** / Latte macchiato
5	- / Choco
6	+ /Mocha
7	**ENTER** / Steam
8	**ESC** / Hot water
9	**Info**
10	**Shift /Clean**

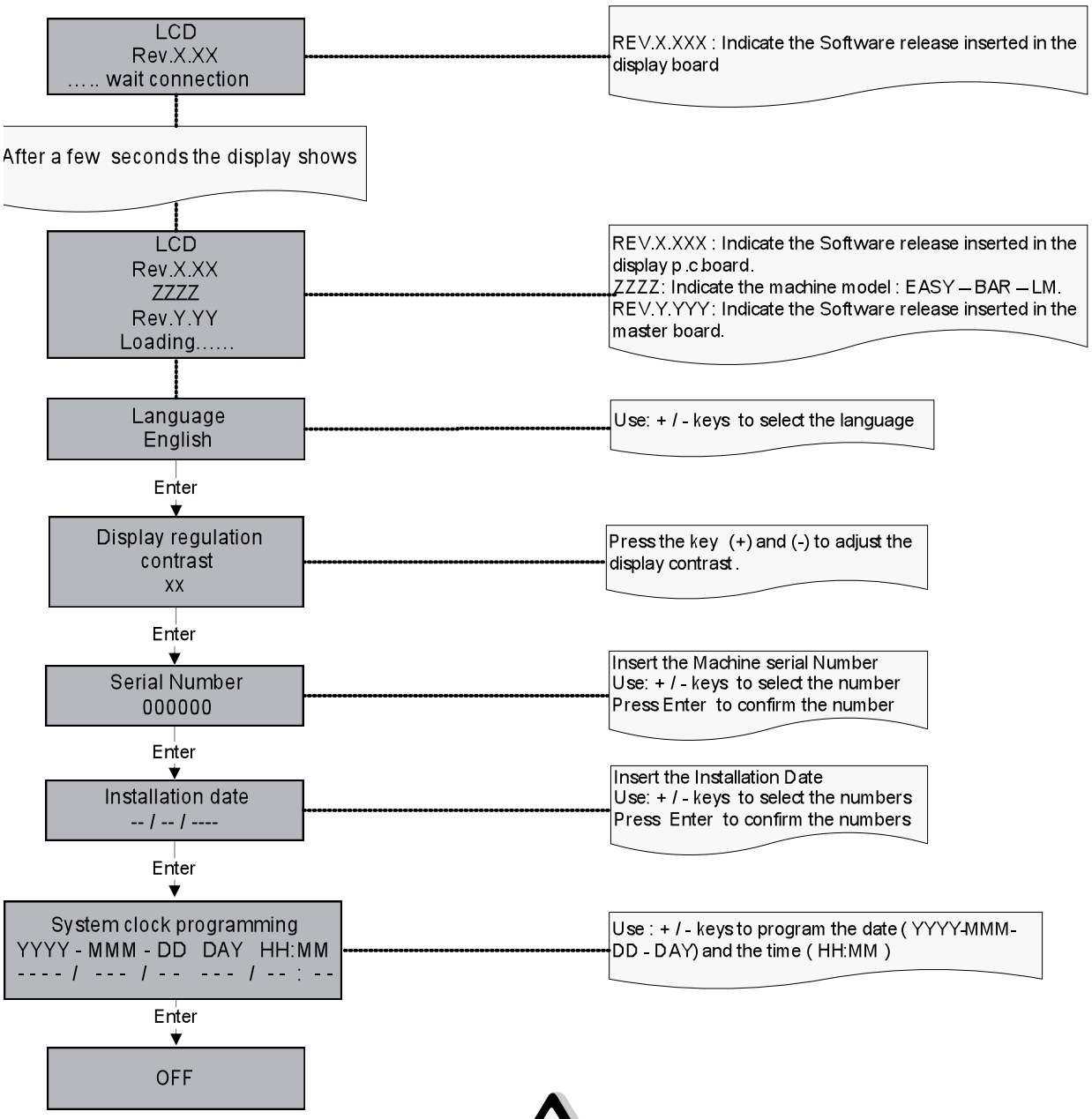
ELECTRIC - HYDRAULIC CONNECTION





STARTING UP

After having connected the machine to the water and electric networks, turn the switch on (see diagram).
The display shows:

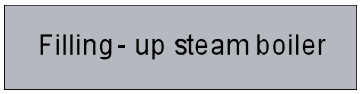

LCD
Rev.X.XX
….. wait connection
REV.X.XXX : Indicate the Software release inserted in the display board
After a few seconds the display shows
LCD
Rev.X.XX
ZZZZ
Rev.Y.YY
Loading……
REV.X.XXX : Indicate the Software release inserted in the display p.c board.
ZZZZ: Indicate the machine model : EASY – BAR – LM.
REV.Y.YYY: Indicate the Software release inserted in the master board.
Language
English
Use: + / - keys to select the language
Enter
Display regulation
contrast
xx
Press the key (+) and (-) to adjust the display contrast.
Enter
Serial Number
000000
Insert the Machine serial Number
Use: + / - keys to select the number
Press Enter to confirm the number
Enter
Installation date
-- / -- / ----
Insert the Installation Date
Use: + / - keys to select the numbers
Press Enter to confirm the numbers
Enter
System clock programming
YYYY - MMM - DD DAY HH:MM
- - - - / - - - / - - - - - - / - - : - -
Use : + / - keys to program the date (YYYY-MMM-DD - DAY) and the time (HH:MM)
Enter
OFF

WARNING:

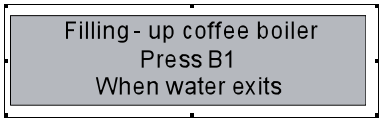
A - If the language choice is not displayed , keep the machine in OFF mode; it is absolutely necessary to carry out a TECHNICIAN PRESET CONFIGURATION DATA procedure.

B - If a FACTORY PRESET CONFIGURATION DATA has been carried out , also the MACHINE CONFIGURATION parameters will be displayed . (See the System manager paragraph).

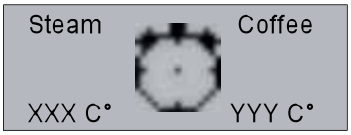
Press the key **SHIFT + INFO**, the display shows:



During this stage the steam boiler is being filled up.
WARNING: The solenoid valve of the steam nozzle automatically opens to release the air inside the boiler.
When the steam boiler has been filled up, the display shows:



During this stage the coffee boiler is being filled up
WARNING:
The upper piston of the coffee group positions itself inside the brewing chamber, and the coffee boiler starts filling up. When the coffee spout starts dispensing water, press the key dose N° 1 to confirm that the filling up procedure has been carried out. When the coffee boiler has been filled up, the display shows:



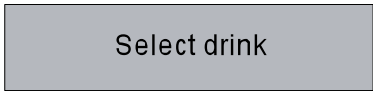
Where:
- XXX °C indicates the temperature of the steam boiler
- YYY ° C indicates the temperature of the coffee boiler

WARNING:

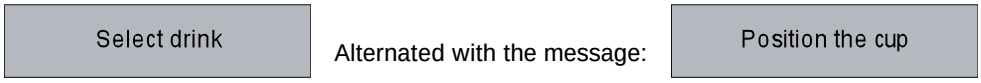
A) DURING THIS STAGE THE MILK FROTHER AND STEAM WAND SOLENOID VALVES WILL STAY OPEN UNTIL 95°C. THIS WILL RELEASE THE AIR FROM THE BOILER AND GENERATE STEAM.

B) WHEN THE BOILER TEMPERATURE OF 50°C ITS REACHED THE MACHINE CARRY-OUT A RINSING GROUP .THIS IS USEFULL TO RELEASE AIR FROM THE WATER COFFEE CIRCUIT; THE DISPLAY WILL SHOW:

When the set-up temperature is reached , the keypad lights are on and the display shows:
For machine configurations: Standard.



For machine configurations: Self.
The display shows:



For machine configurations: waiters' card
The display shows:

For machine configurations: Self + credit card
The display shows:

For machine configuration: Self with coin box.
The display shows:

For machine configuration: Self with coin box + credit card.
The display shows:

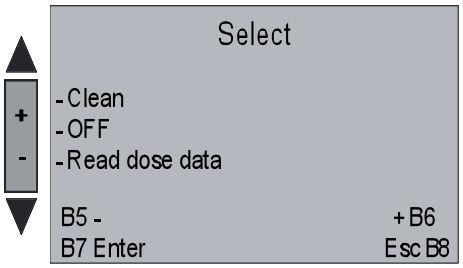
WARNING:

a) For Self with coin box configuration the selections doses are enabled only when the set-up temperature of both boilers (Coffee-Steam) have been reached.
b) To switch ON the machine on every type of Self - configuration, keep key n°10 (shift) pressed and then press key n° 9 (info), the display shows:

- - - - -

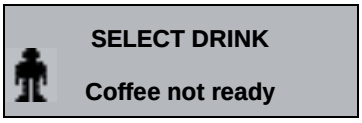
After insert the password (61111) the machine goes to on.

To switch OFF the machine, open the front door or place the smart card and keep key n°10 (shift) pressed and then press key n° 9 (info); or keep key n°10 (shift) pressed for 5 seconds, and after insert the password, the display shows:



Press the key n°6 (+) to select OFF and then press the key n°7 (Enter) to confirm.

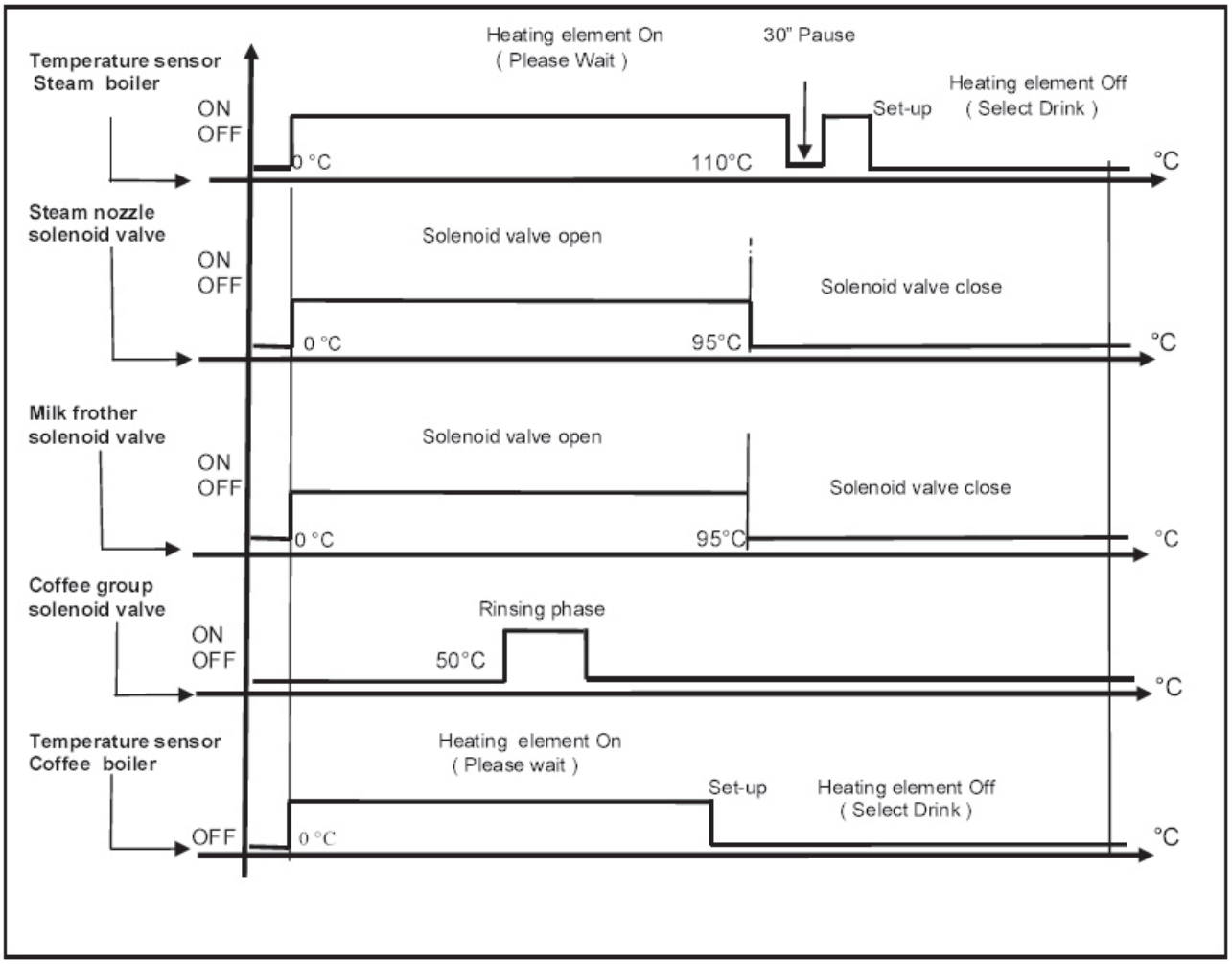
c) In case of temporary voltage drop, the machine will be automatically turned back to the stage previous to the voltage drop.
If the display shows:



The displayed message indicates that the set up heating temperature in the coffee boiler has not been reached yet, and therefore coffee based dispensing are not enabled.
If the display shows:

The displayed message indicates that the set up heating temperature in the steam boiler has not been reached yet, and therefore milk based dispensing and hot water dispensing are not enabled.
In both cases wait until the boiler has reached the set up heating temperature.

SCHEMATIC SUMMARY OF STEAM AND COFFEE BOILER HEATING PHASE

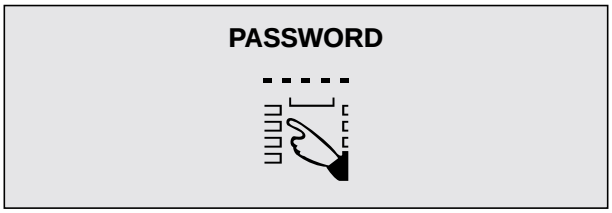


ACCESS THE MAIN SETTING MENUS WITH PASSWORD OR SMART-CARD

A) ACCESS THE MAIN SETTING MENUS WITH PASSWORD

To enter the programming environments, a password is required which define the access rights to the different environments.
The password must be composed with 5 numbers.
To insert the passwords proceed as follows:

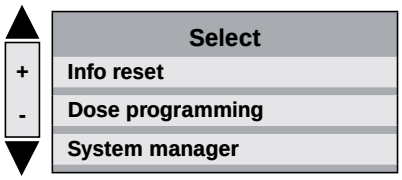
- Turn the machine OFF
- Keep N°10 "SHIFT" key pressed for 5 seconds. The display shows:



Enter one of the following passwords:

- Waiter 6 1 1 1 1
- Roaster 1 1 1 1 1
- Owner 2 2 2 2 2
- Service 3 3 3 3 3
- Technician (for Technician password contact the I.M.C. S.p.A. Technical Service).

After insert the password the display shows the main menu programming environments:

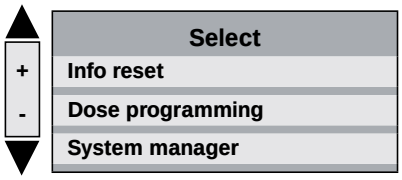


KEY REFERENCE FOR PASSWORD

B) ACCESS THE MAIN SETTING MENUS WITH SMART CARD.
(ONLY FOR MACHINES WITH TRANSPONDER INSTALLED)
To enter the programming environments, place one of the following smart cards above the proper reader with the led light on and the machine in off:

- WAITER SMART CARD
- ROASTER- SMART CARD
- OWNER SMART CARD
- SERVICE SMART CARD
- TECHNICIAN SMART CARD

If the inserted card it is correct the reader led light off .
Keep N°10 “SHIFT” key pressed for 5 seconds. The display shows:



WARNING:
If you use a card having a card code different from the machine code, the reader light flash simultaneously.

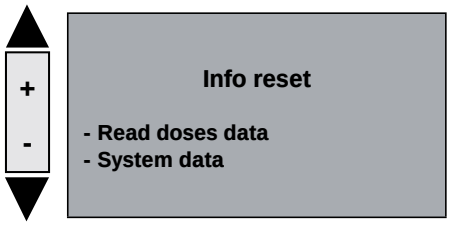
PROGRAMMABLE PARAMETERS IN ACCORDING WITH SMART CARD OR PASSWORD

		WAITER	ROASTER	OWNER	SERVICE	TECHNICIAN
INFO - RESET						
Reard dose data	Douse counter A	X	X	X	X	X
	Douse counter B	X	X	X	X	X
System data	Group cleaning				X	X
	Mixer cleaning				X	X
	Milker cleaning				X	X
	Grinder cycles				X	X
	Water filter				X	X
	Group cycles				X	X
	Total group cycles				X	X
	Total machine cycles				X	X
DOSE PROGRAMMING						
	Dose slight Adj.	X	X	X	X	X
	Set doses				X	X
	Price set-up			X	X	X
	Grinder-milker calib.				X	X
	Instant dispenser Calib.					X
MACHINE CONFIGURATION						
	Main power 200-400v/ 100-120v				X	X
	N° of Grinders					X
	Pump type					X
	Air break Desabled/Enabled				X	X
	Water tank					X
	Tea hot water Desabled/Enabled					X
	N° of Dispenser - Mixer					X
	Steam boiler Desabled/Enabled					X
	Steam boiler Cleaning Frequency				X	X
	Sequential heater				X	X
	Milker Desabled/Enabled					X
	Milk pump					X
	Fridge Desabled/Enabled					X
	Machine type					X
	Remote controller					X
MACHINE PARAMETER						
	Language				X	X
	Serial			X	X	X
	Ground N°	X	X	X	X	X
	Milk pump position				X	X
	Milk pump time pre					
Milk pump speed.				X	X	
	Milk pump time post				X	X
	Rinse after milk dose					X
	Pause after milk					X
	Waiting time milk dose A - B					X
	Additional Milk					X
	Decimal price					X
	Scale factor price					X
	Multi vending					X
	Token					X
	Max credit on card					X
	Alarm detail					X
	Temp. Misure unit					X
	Coffee temperature	X°	X°	X°	X	X
	Steam temperature	X°	X°	X°	X	X
	Energy saver				X	X
	Keyboard sound				X	X
	Gsm: Sim card pin				X	X

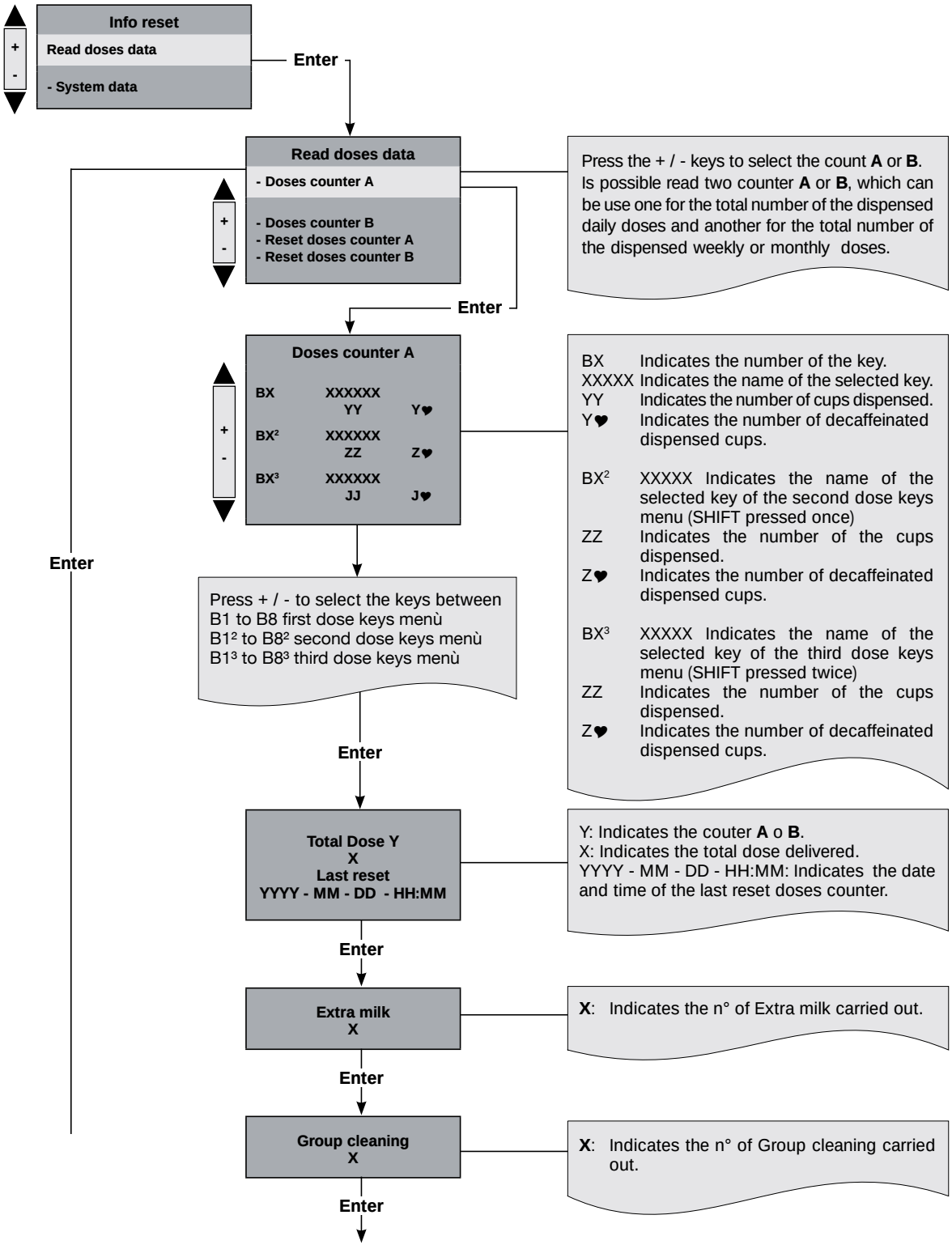
		WAITER	ROASTER	OWNER	SERVICE	TECHNICIAN
	Gsm: Service phone number				X	X
	Modem set-up parameters				X	X
	Remote password				X	X
	User message	X	X	X	X	X
	Serial N°				X	X
	Installation date				X	X
SYSTEM CLOCK PROGRAMMING						
	YY-MM-DD Day HH:MM	X°	X°	X°	X	X
	Clock display			X	X	X
	Auto start -up			X	X	X
	On - Off			X	X	X
	Day Off			X	X	X
DISPLAY REGULATION						
	Contrast			X	X	X
	Display mode			X	X	X
	Default colour			X	X	X
SERVICE						
Clean/Rinse	Cleaning time	X		X	X	X
	Cycle cleaning alarm					X
	Group cleaning Programming					X
	Group auto rinsing		X	X	X	X
	Whisk cleaning program					X
	Whisk rinsing					X
	Milker cleaning program.					X
	Milker auto rinsing					X
Maintenance set -up						
	Waiter filter				X	X
	Machine service				X	X
	Grinders				X	X
	Group cycles				X	X
SMART CARD MANAGER						
	System code				X	X
	Credit load			X	X	X
	Enable/disable waiter N°			X	X	X
CHANGE PASSWORD						
	Roaster		X	X	X	X
	Owner			X	X	X
	Service				X	X
	Technician					X
GROUP MANUAL MOVEMENTS						
	Group manual movements				X	X
TEST ACTUATORS						
	Test actuators				X	X
	Milk pump speed				X	X
	Mixer test				X	X
	Dispenser test				X	X
	Exhaust fan test				X	X
BOILER DRANING						
	Boiler draining				X	X
ALARM HISTORY						
	Alarm history	X°	X°	X°	X	X
PRESET CONF. DATA					X	X
	Preset configuration data				X	X

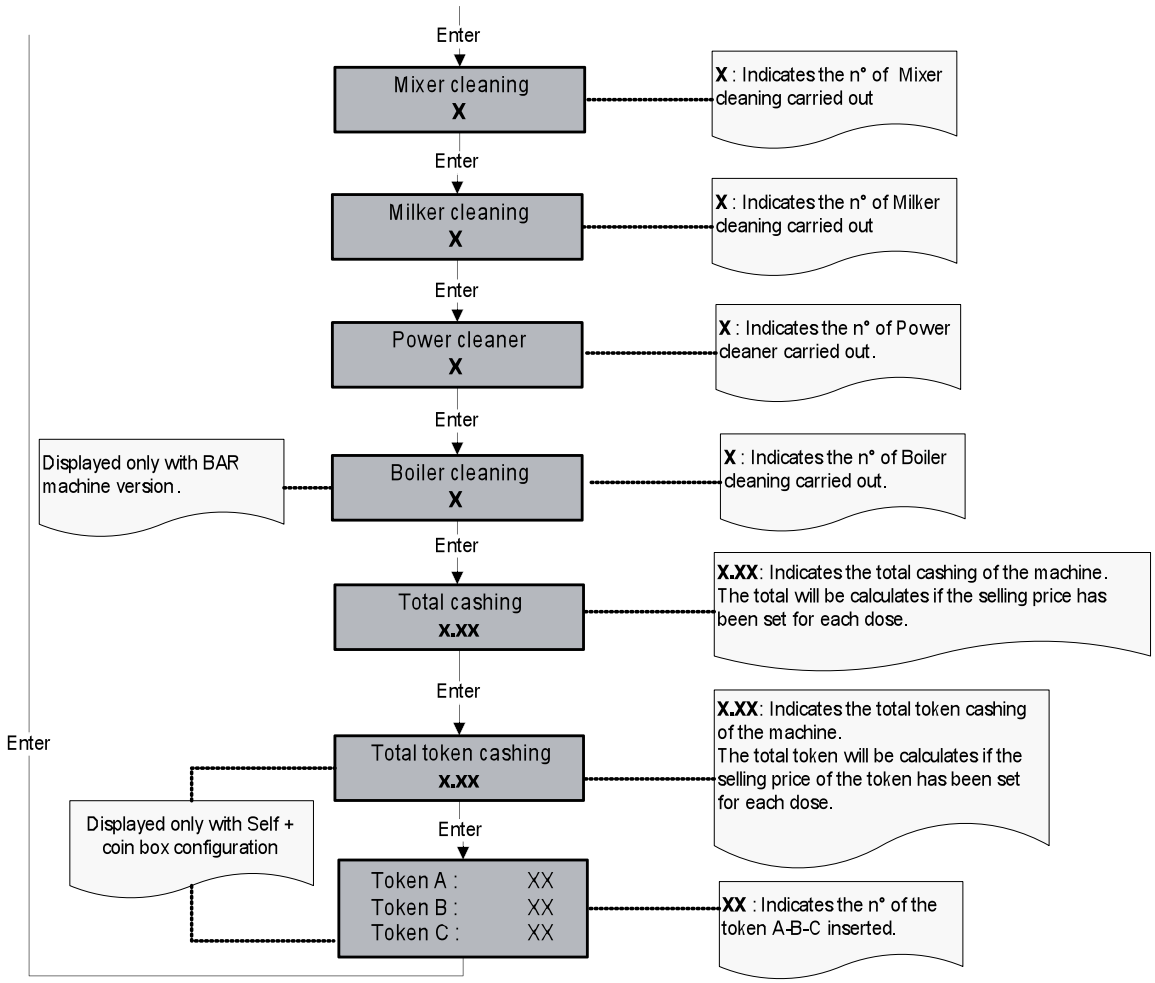
Where X indicate the available program and X° indicate the partial available program.
N.B.: A) If the “PRESET CONFIGURATION DATA” is done with the Service smart card or password will be reseted only the service accessible parameters.

INFO-RESET

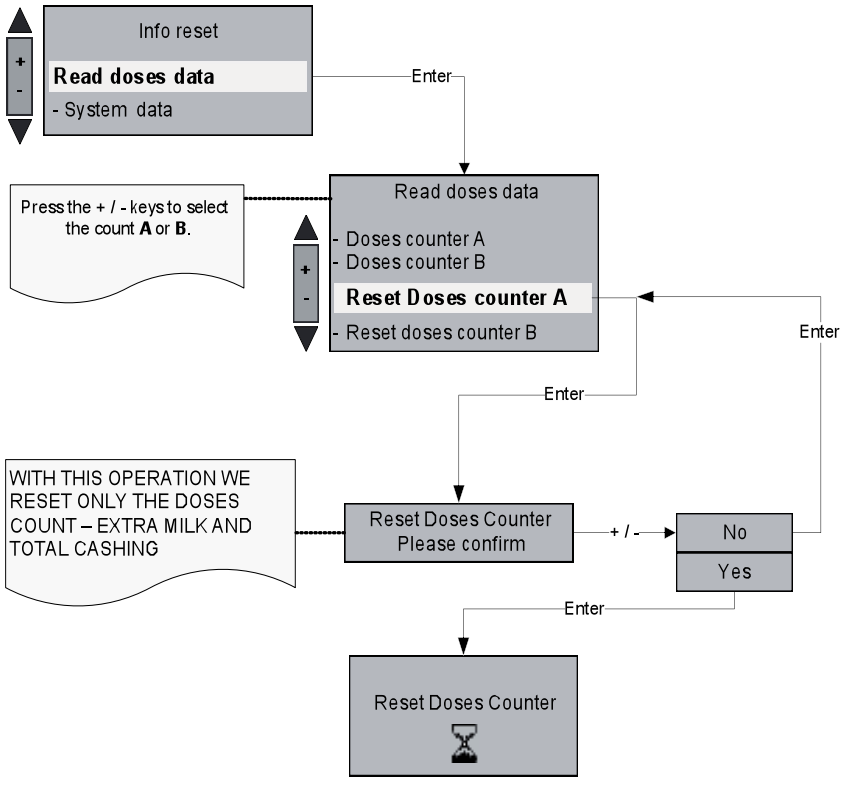


A1) READ DOSES DATA (Doses counter A/B).

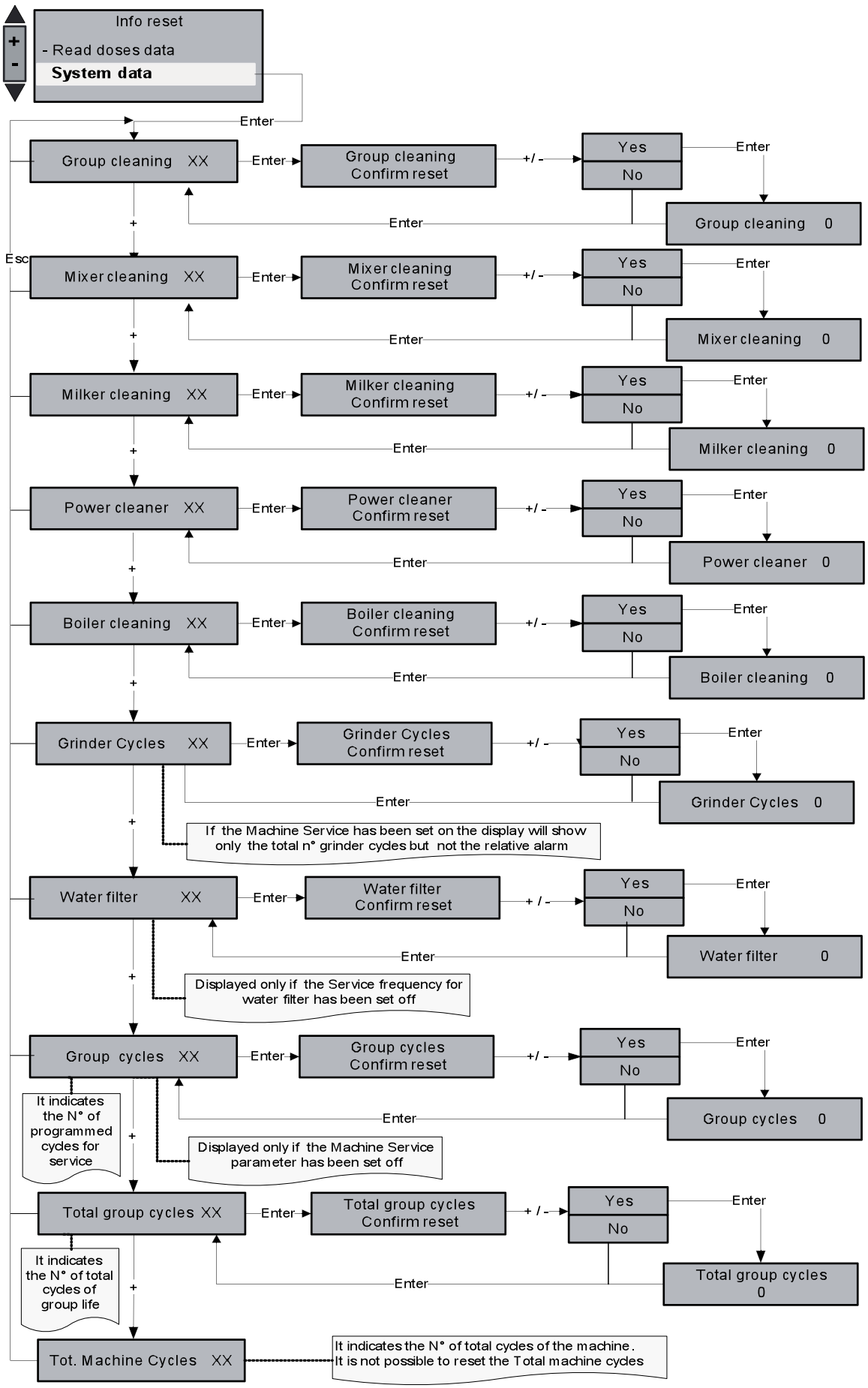

Info reset
Read doses data
- System data
Enter
Read doses data
- Doses counter A
- Doses counter B
- Reset doses counter A
- Reset doses counter B
Press the + / - keys to select the count A or B. Is possible read two counter A or B, which can be use one for the total number of the dispensed daily doses and another for the total number of the dispensed weekly or monthly doses.
Enter
Doses counter A
BX XXXXXX YY Y♥
BX² XXXXXX ZZ Z♥
BX³ XXXXXX JJ J♥
BX Indicates the number of the key.
XXXXX Indicates the name of the selected key.
YY Indicates the number of cups dispensed.
Y♥ Indicates the number of decaffeinated dispensed cups.
BX² XXXXX Indicates the name of the selected key of the second dose keys menu (SHIFT pressed once)
ZZ Indicates the number of the cups dispensed.
Z♥ Indicates the number of decaffeinated dispensed cups.
BX³ XXXXX Indicates the name of the selected key of the third dose keys menu (SHIFT pressed twice)
ZZ Indicates the number of the cups dispensed.
Z♥ Indicates the number of decaffeinated dispensed cups.
Enter
Press + / - to select the keys between B1 to B8 first dose keys menù B1² to B8² second dose keys menù B1³ to B8³ third dose keys menù
Enter
Total Dose Y
X
Last reset
YYYY - MM - DD - HH:MM
Y: Indicates the couter A o B.
X: Indicates the total dose delivered.
YYYY - MM - DD - HH:MM: Indicates the date and time of the last reset doses counter.
Enter
Extra milk
X
X: Indicates the n° of Extra milk carried out.
Enter
Group cleaning
X
X: Indicates the n° of Group cleaning carried out.
Enter


Enter
Mixer cleaning
X
X : Indicates the n° of Mixer cleaning carried out
Enter
Milker cleaning
X
X : Indicates the n° of Milker cleaning carried out
Enter
Power cleaner
X
X : Indicates the n° of Power cleaner carried out.
Enter
Displayed only with BAR machine version.
Boiler cleaning
X
X : Indicates the n° of Boiler cleaning carried out.
Enter
Total cashing
x.xx
X.XX: Indicates the total cashing of the machine. The total will be calculates if the selling price has been set for each dose.
Enter
Enter
Total token cashing
x.xx
X.XX: Indicates the total token cashing of the machine. The total token will be calculates if the selling price of the token has been set for each dose.
Displayed only with Self + coin box configuration
Enter
Token A : XX
Token B : XX
Token C : XX
XX : Indicates the n° of the token A-B-C inserted.

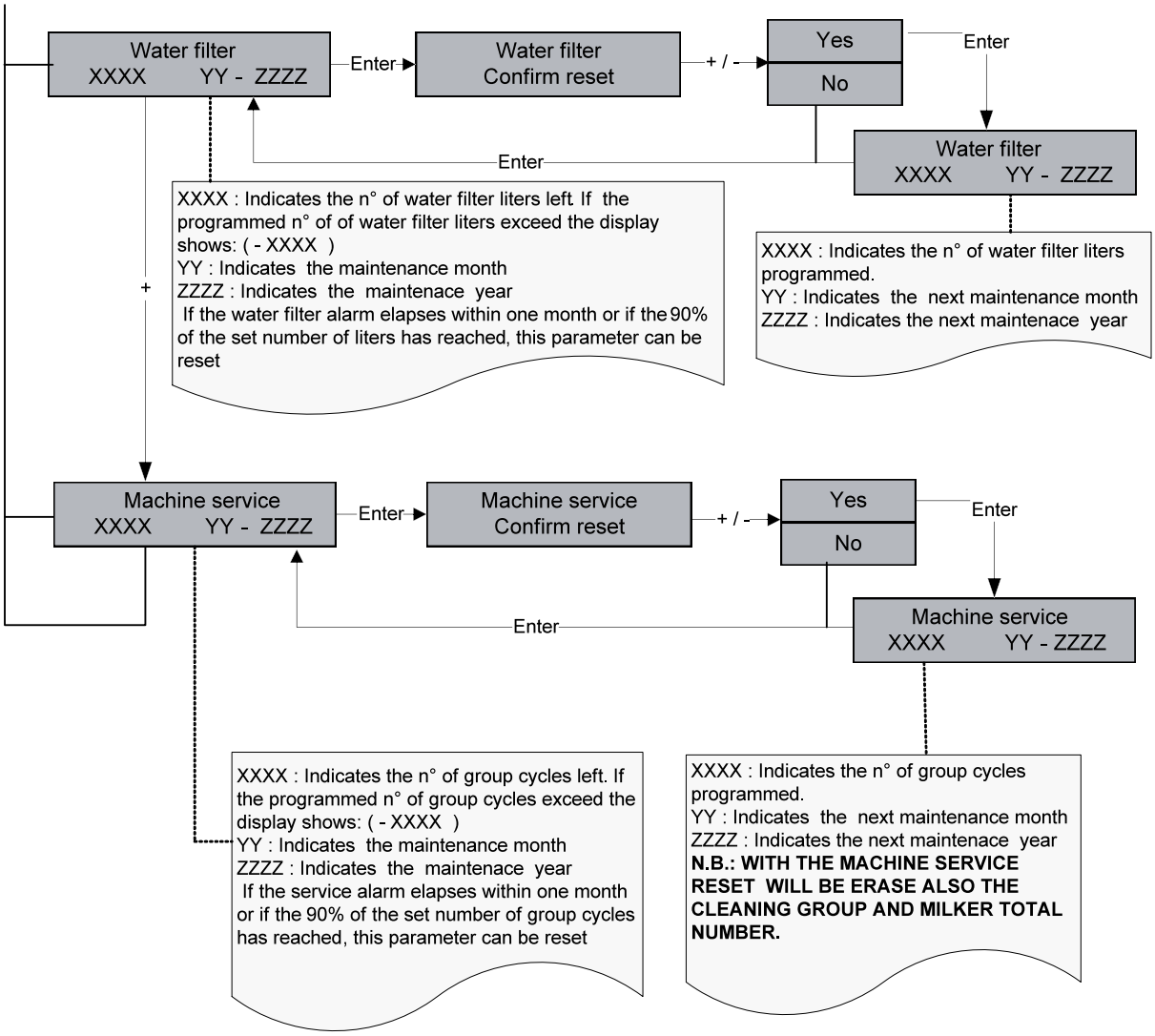
A2) READ DOSES DATA (Reset doses counter A/B).



B) INFO RESET SYSTEM DATA.



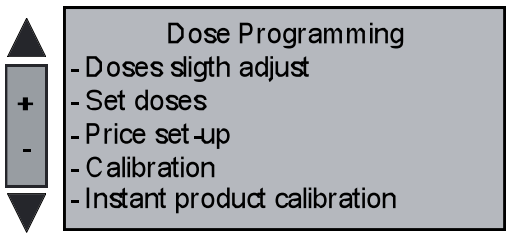
THE FOLLOWING INFO ARE DISPLAYED ONLY WHEN THE CLOCK IS PROGRAMMED.


Water filter
XXXX YY - ZZZZ
Enter
Water filter
Confirm reset
+ / -
Yes
No
Enter
Enter
Water filter
XXXX YY - ZZZZ
XXXX : Indicates the n° of water filter liters left If the programmed n° of water filter liters exceed the display shows: (- XXXX)
YY : Indicates the maintenance month
ZZZZ : Indicates the maintenace year
If the water filter alarm elapses within one month or if the 90% of the set number of liters has reached, this parameter can be reset
XXXX : Indicates the n° of water filter liters programmed.
YY : Indicates the next maintenance month
ZZZZ : Indicates the next maintenace year
+
Machine service
XXXX YY - ZZZZ
Enter
Machine service
Confirm reset
+ / -
Yes
No
Enter
Enter
Machine service
XXXX YY - ZZZZ
XXXX : Indicates the n° of group cycles left. If the programmed n° of group cycles exceed the display shows: (- XXXX)
YY : Indicates the maintenance month
ZZZZ : Indicates the maintenace year
If the service alarm elapses within one month or if the 90% of the set number of group cycles has reached, this parameter can be reset
XXXX : Indicates the n° of group cycles programmed.
YY : Indicates the next maintenance month
ZZZZ : Indicates the next maintenace year
N.B.: WITH THE MACHINE SERVICE RESET WILL BE ERASE ALSO THE CLEANING GROUP AND MILKER TOTAL NUMBER.

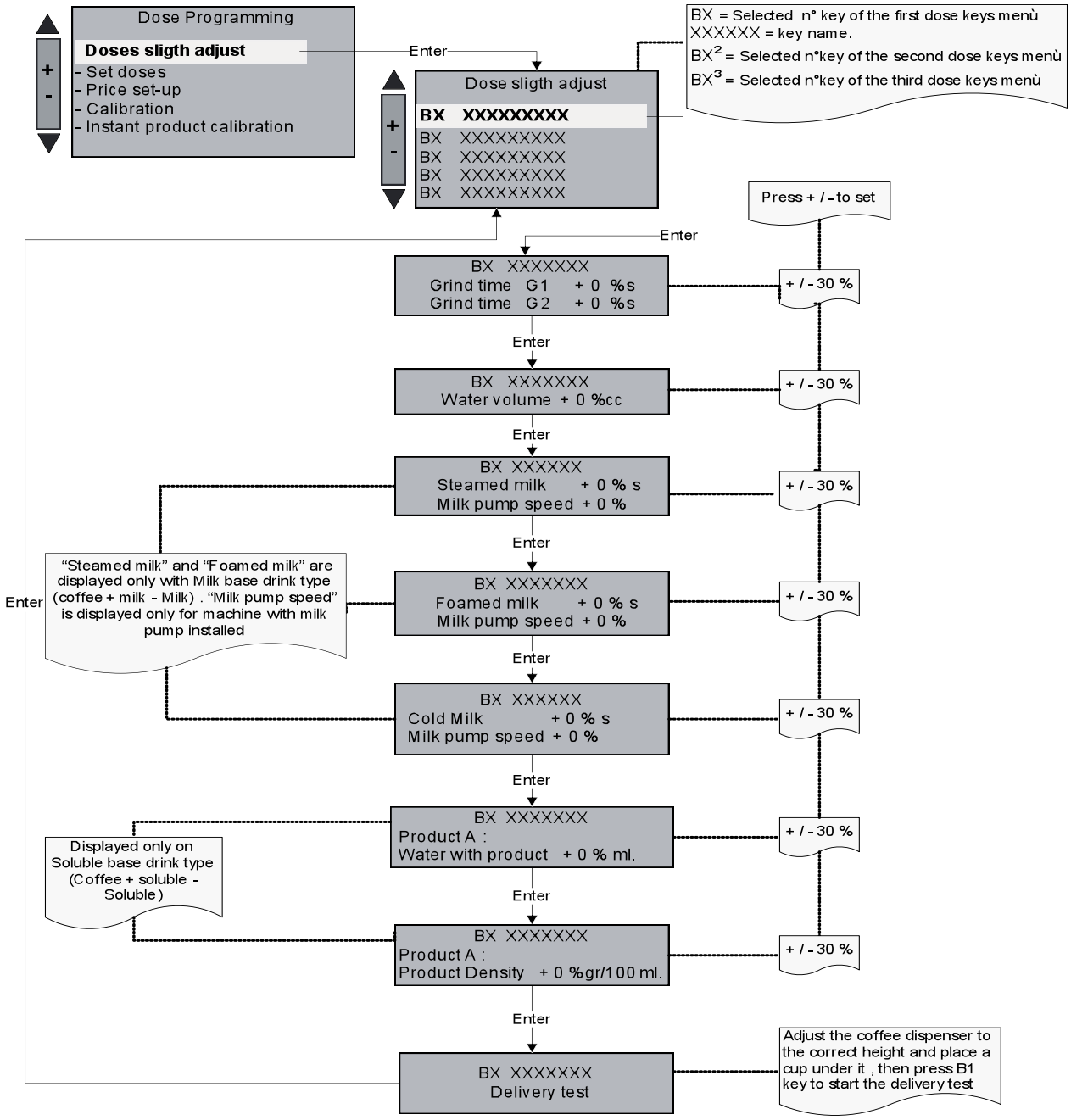
WARNING:
The owner's card can only enter total dose reset environment and water softener alarm reset.
Environments: group cycles, M1 tools time, M2 tools time and water filter litres will be displayed only if values higher than 000 (zero) have been set during the programming stage.

DOSES PROGRAMMING

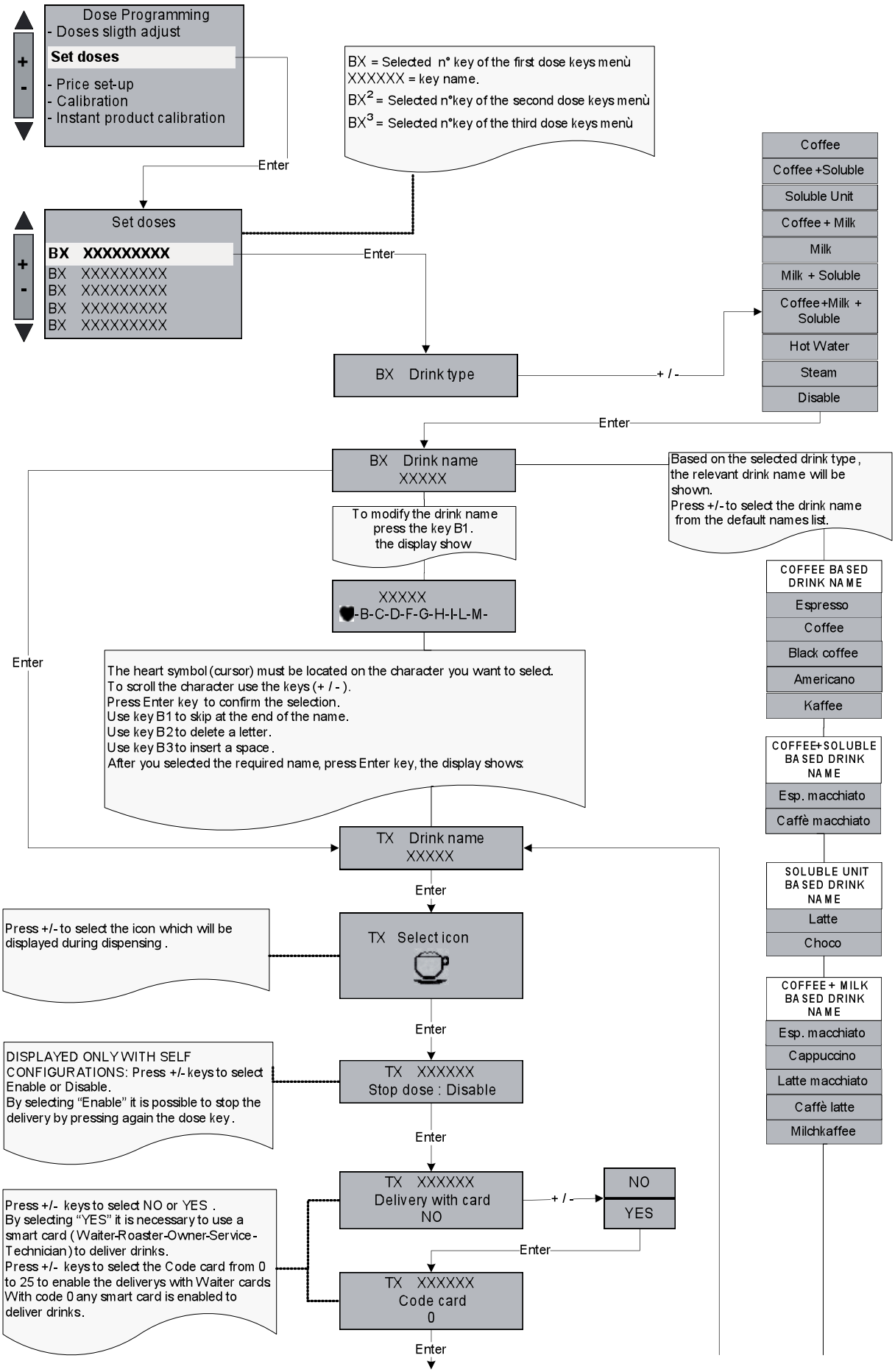
PLEASE NOTE: TO ACCESS TO THE DOSES PROGRAMMING THE MACHINE MUST BE AT THE SET-UP TEMPERATURE.
Press the key No 5 (-) and No 6 (+) to select the parameter and then press the key No 8 (Enter) to confirm the selection.

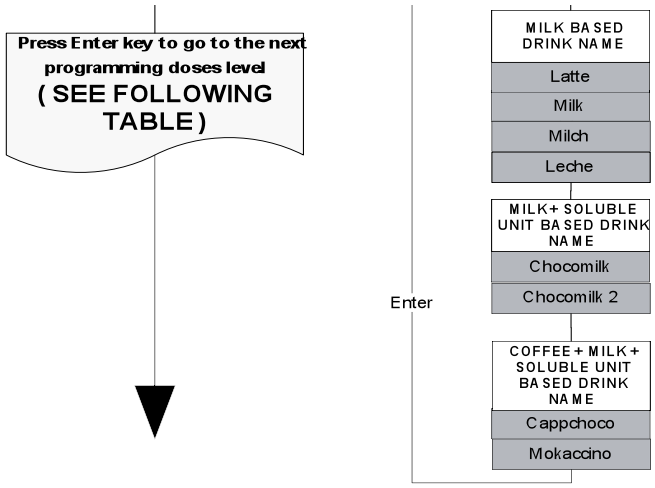


A) DOSES SLIGHT ADIUSTMENT.


Dose Programming
Doses sligth adjust
- Set doses
- Price set-up
- Calibration
- Instant product calibration
Enter
Dose sligth adjust
BX XXXXXXXXX
BX XXXXXXXXX
BX XXXXXXXXX
BX XXXXXXXXX
BX XXXXXXXXX
BX = Selected n° key of the first dose keys menù
XXXXXX = key name.
BX2 = Selected n°key of the second dose keys menù
BX3 = Selected n°key of the third dose keys menù
Press + / - to set
Enter
BX XXXXXXX
Grind time G1 + 0 %s
Grind time G2 + 0 %s
+ / - 30 %
Enter
BX XXXXXXX
Water volume + 0 %cc
+ / - 30 %
Enter
BX XXXXXX
Steamed milk + 0 % s
Milk pump speed + 0 %
+ / - 30 %
Enter
"Steamed milk" and "Foamed milk" are displayed only with Milk base drink type (coffee + milk - Milk) . "Milk pump speed" is displayed only for machine with milk pump installed
Enter
BX XXXXXXX
Foamed milk + 0 % s
Milk pump speed + 0 %
+ / - 30 %
Enter
BX XXXXXX
Cold Milk + 0 % s
Milk pump speed + 0 %
+ / - 30 %
Enter
BX XXXXXXX
Product A :
Water with product + 0 % ml.
+ / - 30 %
Displayed only on Soluble base drink type (Coffee + soluble - Soluble)
Enter
BX XXXXXXX
Product A :
Product Density + 0 %gr/100 ml.
+ / - 30 %
Enter
BX XXXXXXX
Delivery test
Adjust the coffee dispenser to the correct height and place a cup under it , then press B1 key to start the delivery test

B) SET DOSES.


Dose Programming
- Doses sligth adjust
Set doses
- Price set-up
- Calibration
- Instant product calibration
Enter
BX = Selected n° key of the first dose keys menù
XXXXXX = key name.
BX2 = Selected n°key of the second dose keys menù
BX3 = Selected n°key of the third dose keys menù
Set doses
BX XXXXXXXXX
BX XXXXXXXXX
BX XXXXXXXXX
BX XXXXXXXXX
BX XXXXXXXXX
Enter
BX Drink type
+ / -
Coffee
Coffee +Soluble
Soluble Unit
Coffee + Milk
Milk
Milk + Soluble
Coffee+Milk + Soluble
Hot Water
Steam
Disable
Enter
BX Drink name
XXXXX
Based on the selected drink type, the relevant drink name will be shown.
Press +/- to select the drink name from the default names list.
To modify the drink name press the key B1. the display show
XXXXX
-B-C-D-F-G-H-I-L-M-
COFFEE BASED DRINK NAME
Espresso
Coffee
Black coffee
Americano
Kaffee
COFFEE+SOLUBLE BASED DRINK NAME
Esp. macchiato
Caffè macchiato
SOLUBLE UNIT BASED DRINK NAME
Latte
Choco
COFFEE + MILK BASED DRINK NAME
Esp. macchiato
Cappuccino
Latte macchiato
Caffè latte
Milchkaffee
Enter
The heart symbol (cursor) must be located on the character you want to select.
To scroll the character use the keys (+ / -).
Press Enter key to confirm the selection.
Use key B1 to skip at the end of the name.
Use key B2 to delete a letter.
Use key B3 to insert a space.
After you selected the required name, press Enter key, the display shows:
TX Drink name
XXXXX
Enter
Press +/- to select the icon which will be displayed during dispensing.
TX Select icon
Enter
DISPLAYED ONLY WITH SELF CONFIGURATIONS: Press +/- keys to select Enable or Disable.
By selecting "Enable" it is possible to stop the delivery by pressing again the dose key.
TX XXXXXX
Stop dose : Disable
Enter
Press +/- keys to select NO or YES.
By selecting "YES" it is necessary to use a smart card (Waiter-Roaster-Owner-Service-Technician) to deliver drinks.
Press +/- keys to select the Code card from 0 to 25 to enable the deliverys with Waiter cards.
With code 0 any smart card is enabled to deliver drinks.
TX XXXXXX
Delivery with card
NO
+ / -
NO
YES
Enter
TX XXXXXX
Code card
0
Enter

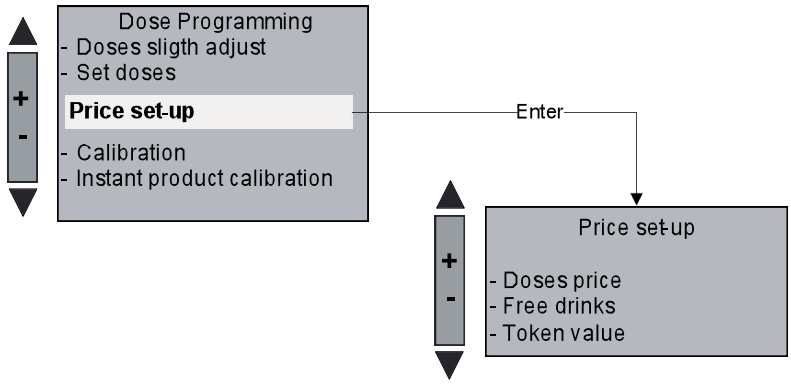


DOSE PARAMETERS	Coffee Drink type	Coffee+Soluble Drink type	Soluble Drink type	Coffee+ Milk Drink type	Milk Drink type	Milk + Soluble Drink type	Coffee+ Milk + Soluble Drink type	Hot Water drink type	Steam
PRODUCT A: PRE	-	X	X	-	-	X	X	-	-
PRODUCT A: POST	-	X	X	-	-	X	X	-	-
PRODUCT B: PRE	-	X	X	-	-	X	X	-	-
PRODUCT B: POST	-	X	X	-	-	X	X	-	-
DECAFFEINATED Enabled/Disabled	X	X	-	X	-		-	-	-
GRIND TIME G1-2	X	X	-	X	-	-	X	-	-
PRE-INFUSION XX ml.	X	X	-	X	-	-	X	-	-
PAUSE XX sec.	X	X	-	X	-	-	X	X	-
COFFEE WATER VOLUME XX ml.	X	X	-	X	-	-	X	-	-
EXTRA WATER XX ml.	-	X	X	-	-	X	X	-	-
START AFTER XX ml.	-	X	X	-	-	X	X	-	-
PRODUCT A COLD WATER Yes / No	-	X	X	-	-	X	X	-	-
PRODUCT A Water with product ml.	-	X	X	-	-	X	X	-	
PRODUCT A Whisk speed Xx %	-								
PRODUCT DENSITY A	-	X	X	-	-	X	X	-	-
aaa gr./100ml (GGG gr./100 ml)	-	X	X	-	-	X	X	-	-
PRODUCT B Water with product ml.	-	X	X	-	-	X	X	-	
PRODUCT B Whisk speed Xx %	-								
PRODUCT DENSITY B	-	X	X	-	-	X	X	-	-
aaa gr./100ml (GGG gr./100 ml)	-	X	X	-	-	X	X	-	-
POST WATER XX ml.	X	X	-	X	-	-	X	-	-
Solu. Drink pause Sec.	X								
BOILER TEMPERATURE		X							
COFFEE CAKE DECOMP.		-							
10 = 0.5mm.		X							
- XX Puls.		-							
WATER PUMP Enabled /Disabled		-							
REPETITION CYCLE		X							
COLD MILK xx sec.		-							
MILK PUMP SPEED Xx %									
EXTRA MILK Enabled/Disabled	-								
STEAM MILK PRE sec									
MILK PUMP SPEED Xx %	X	X	-	X	-	-	X	-	-
FOAMED MILK PRE sec	X	-	-	-	-	-	-	-	-
MILK PUMP SPEED Xx %	-	-	-	X	X	X	X	-	-
PAUSE MILK-COFFEE se	-	-	-	X	X	X	X	-	-
STEAM MILK POST sec	-	-	-	X	X	X	X	-	-
MILK PUMP SPEED Xx %	-	-	-	X	X	X	X	-	-
FOAMED MILK POST sec	-	-	-	X	X	X	X	-	-
MILK PUMP SPEED Xx %	-	-	-	X	X	X	X	-	-
CODE I/O	-	-	-	X	X	X	X	-	-
CODE I/O EXTRA-MILK	X	X	X	X	X	X	X	X	X
STEAM TIME	-	-	-	X	X	X	X	-	-
PURGE AFTER STEAM	-	-	-	-	-	-	-	-	X
PAUSE XX.Sec	-	-	-	-	-	-	-	-	
PURGE AFTER STEAM	X								
PURGE XX.Sec.	-	-	-	-	-	-	-	-	
DELIVERY TEST	X								
	X	X	X	X	X	X	X	-	-

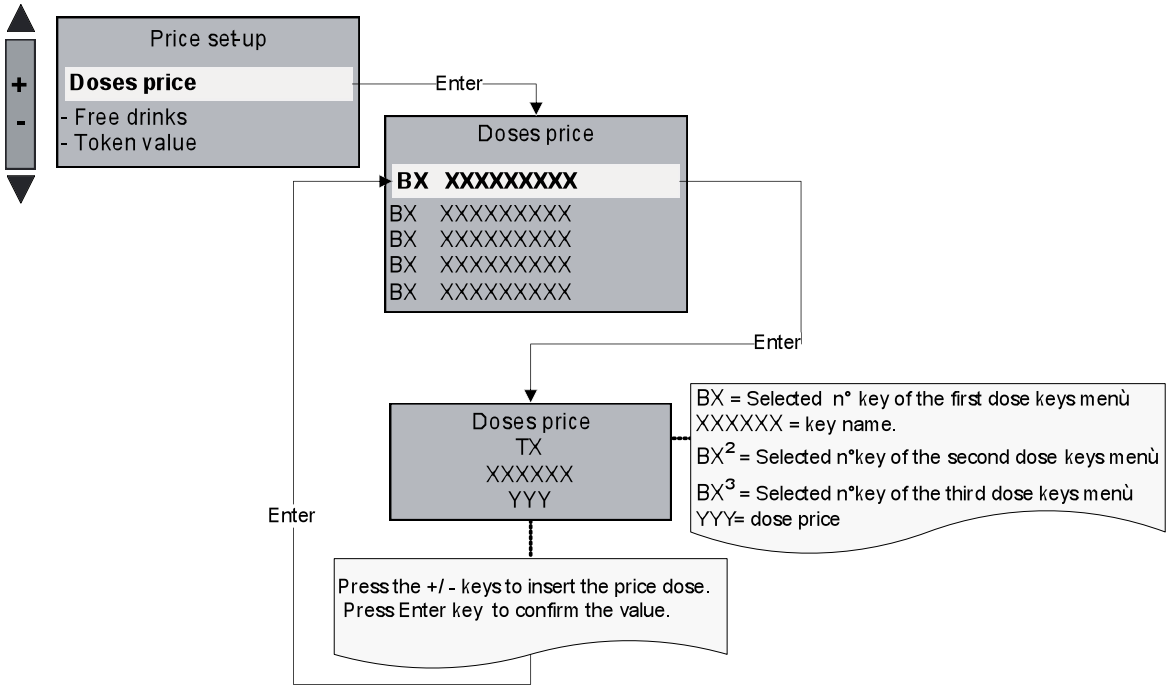
Depending on the drink type, the necessary dose parameters will be activated to set the drink.
Press the key N°7 (Enter) to confirm the modification carried out and shift to the next level.
Press the key N°6 (+) and No5 (-) to modify the level mode.
Press the key N°8 (Esc) to return to the previous environment and/or exit.

Please note:
A) Some dose parameters will be displayed only if the relevant component has been activated in the “MACHINE PARAM-ETERS” environments: milker- interface i/o hartwall or coin mechanism.
B) For Coffee + Milk and Milk drink type the “repetition cycle” is not available.
C) The “Milk pump speed and Cold milk parameters” will be displayed only for machine with the milk pump installed.

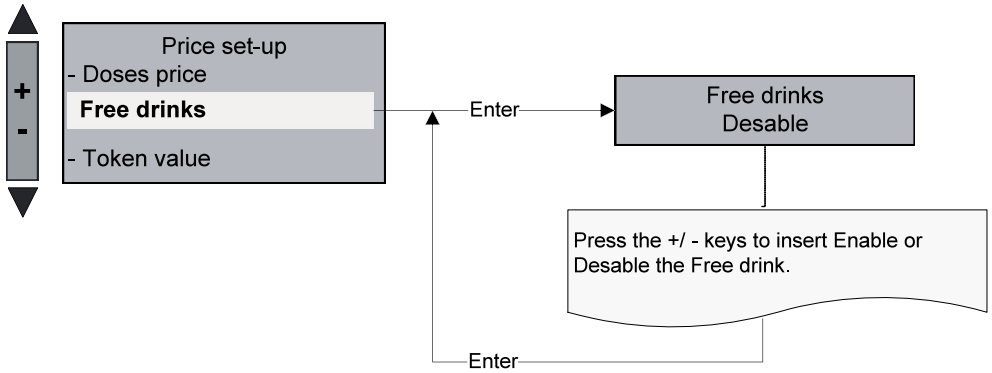
C) PRICE SET-UP.



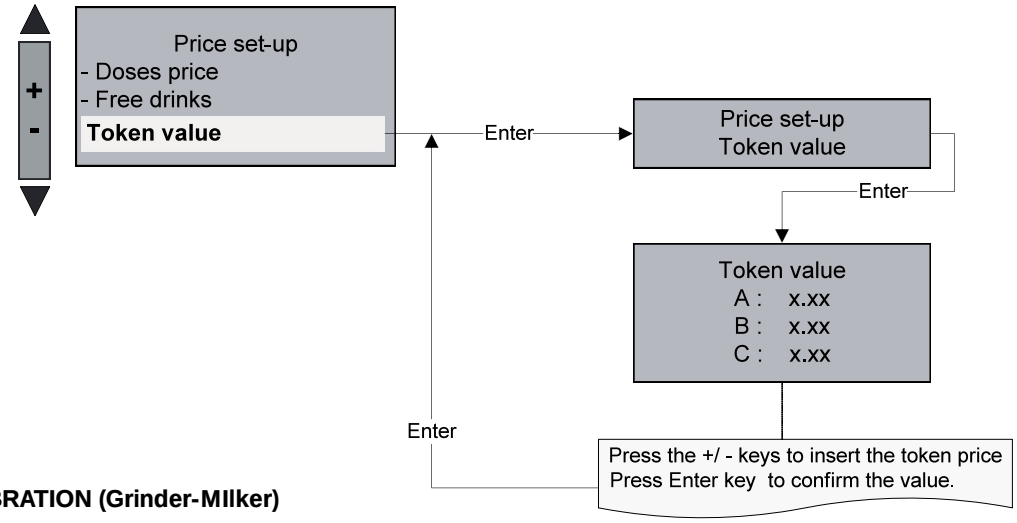
C1) Doses price



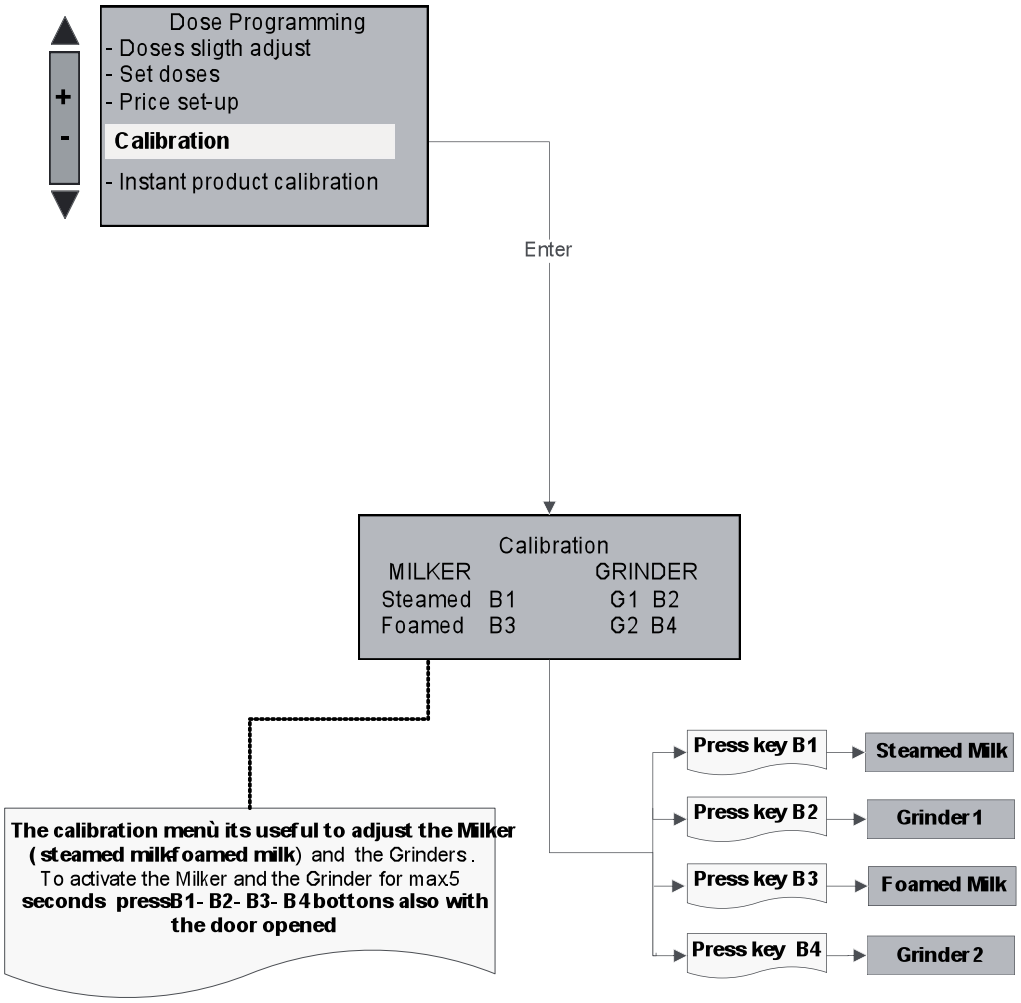
C2) Free drinks



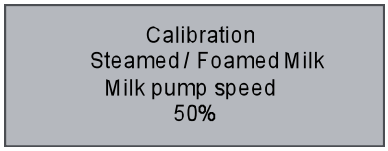
C3) Token value



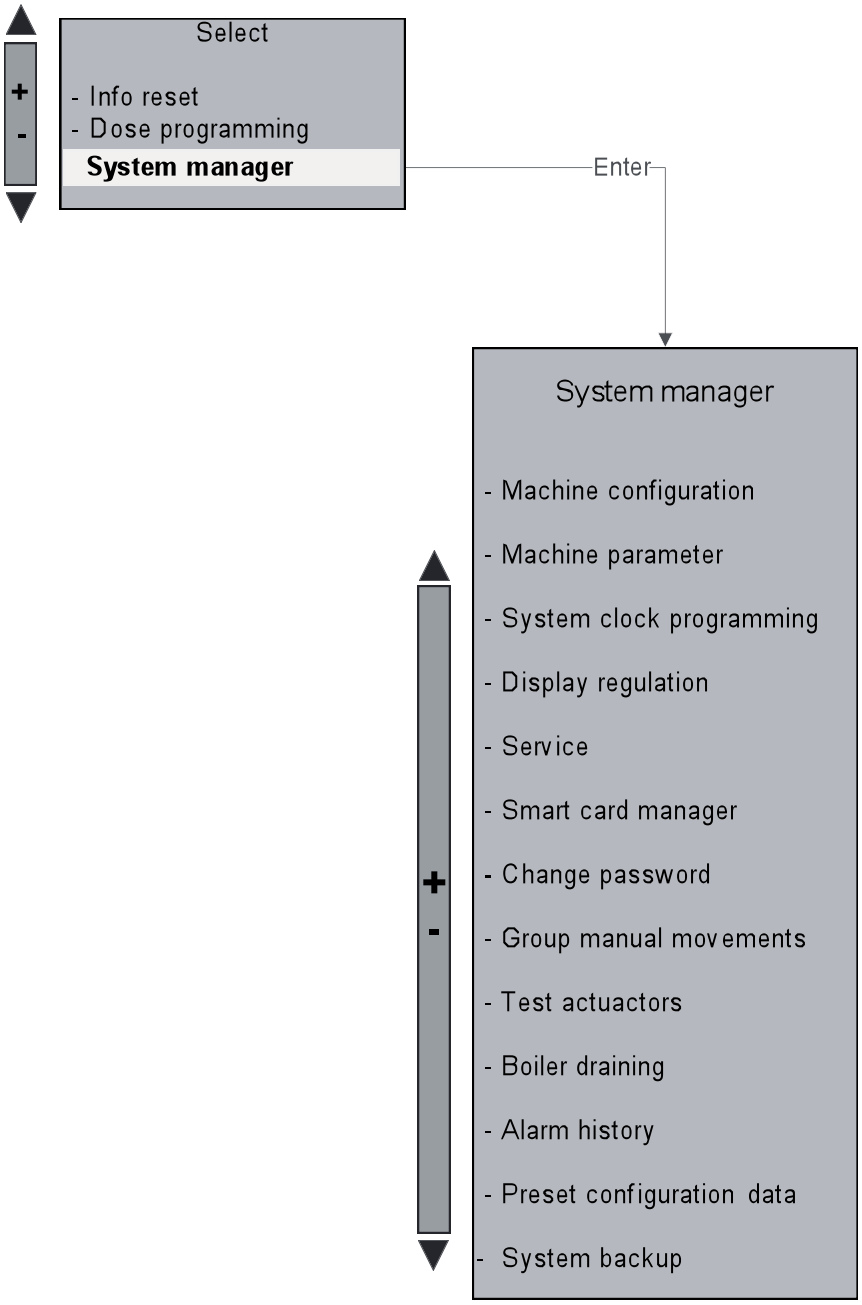
D) CALIBRATION (Grinder-MIlker)



WARNING:
If milk pump enabled, it is possible to set the pump speed by pressing +/- buttons during the delivery, the display shows:

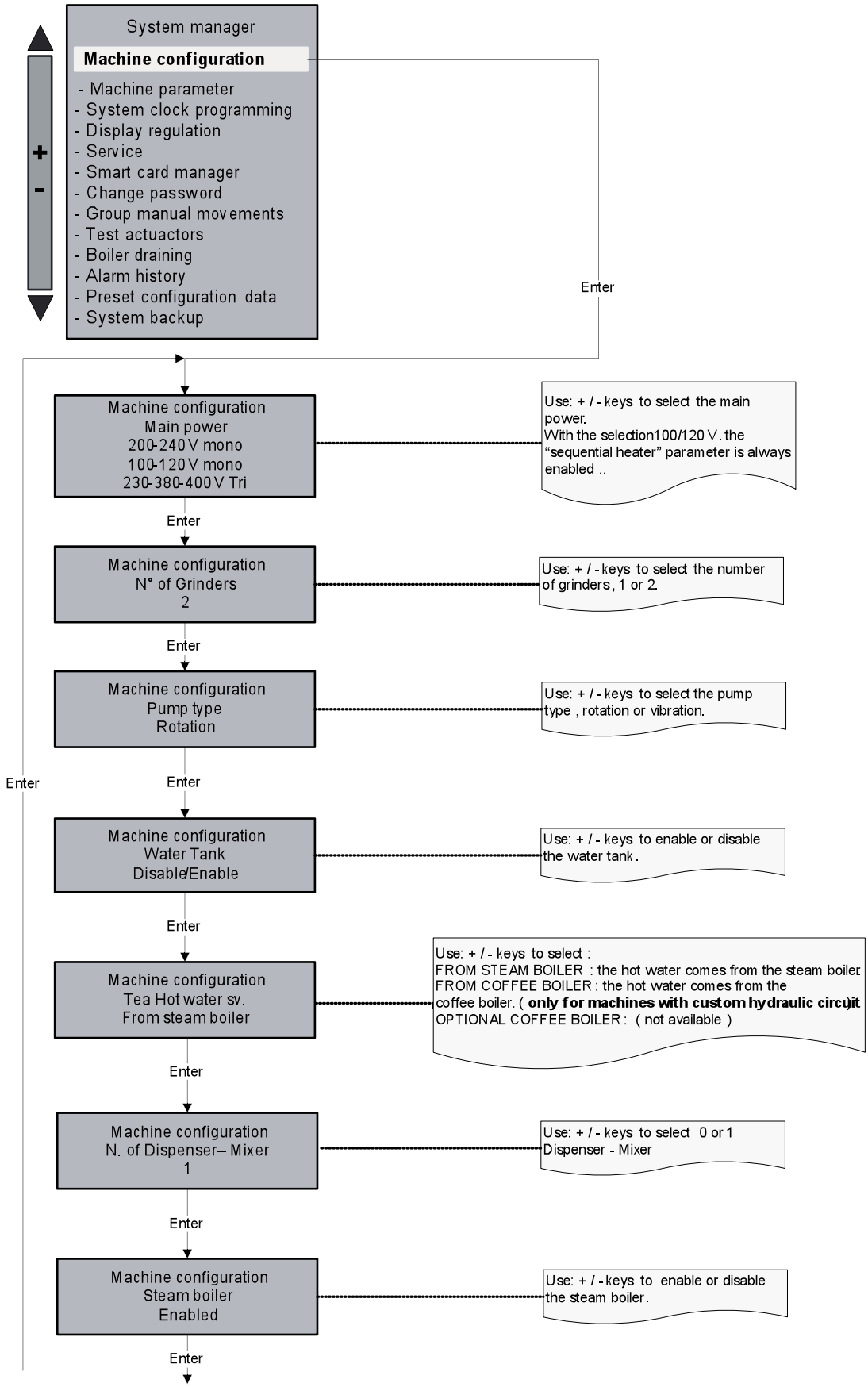


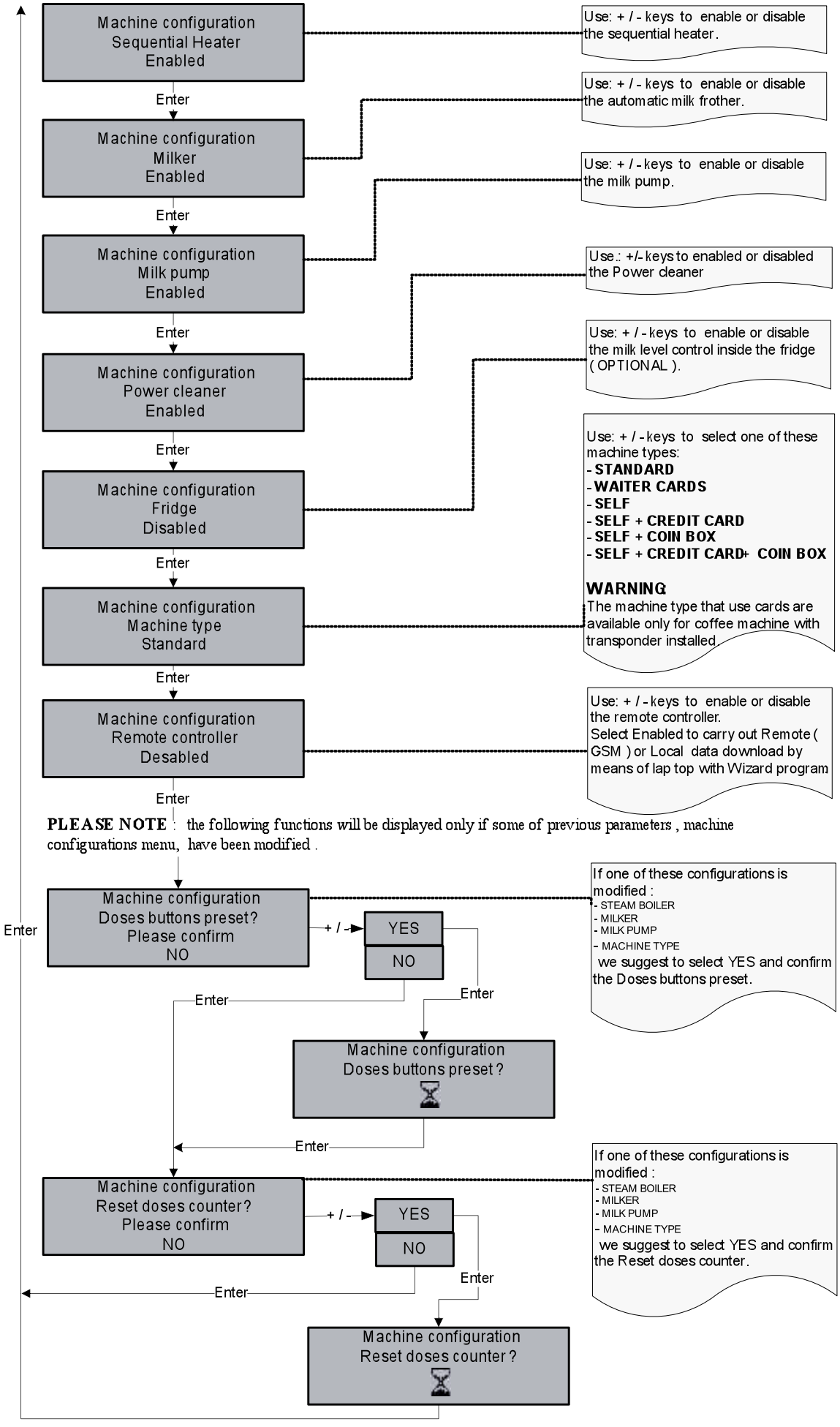
the set value will be saved in all drinks with steamed foamed milk.



the key N°7 (Enter) to confirm entering the desired environment.
Press the key N° 8 (Esc) to exit.

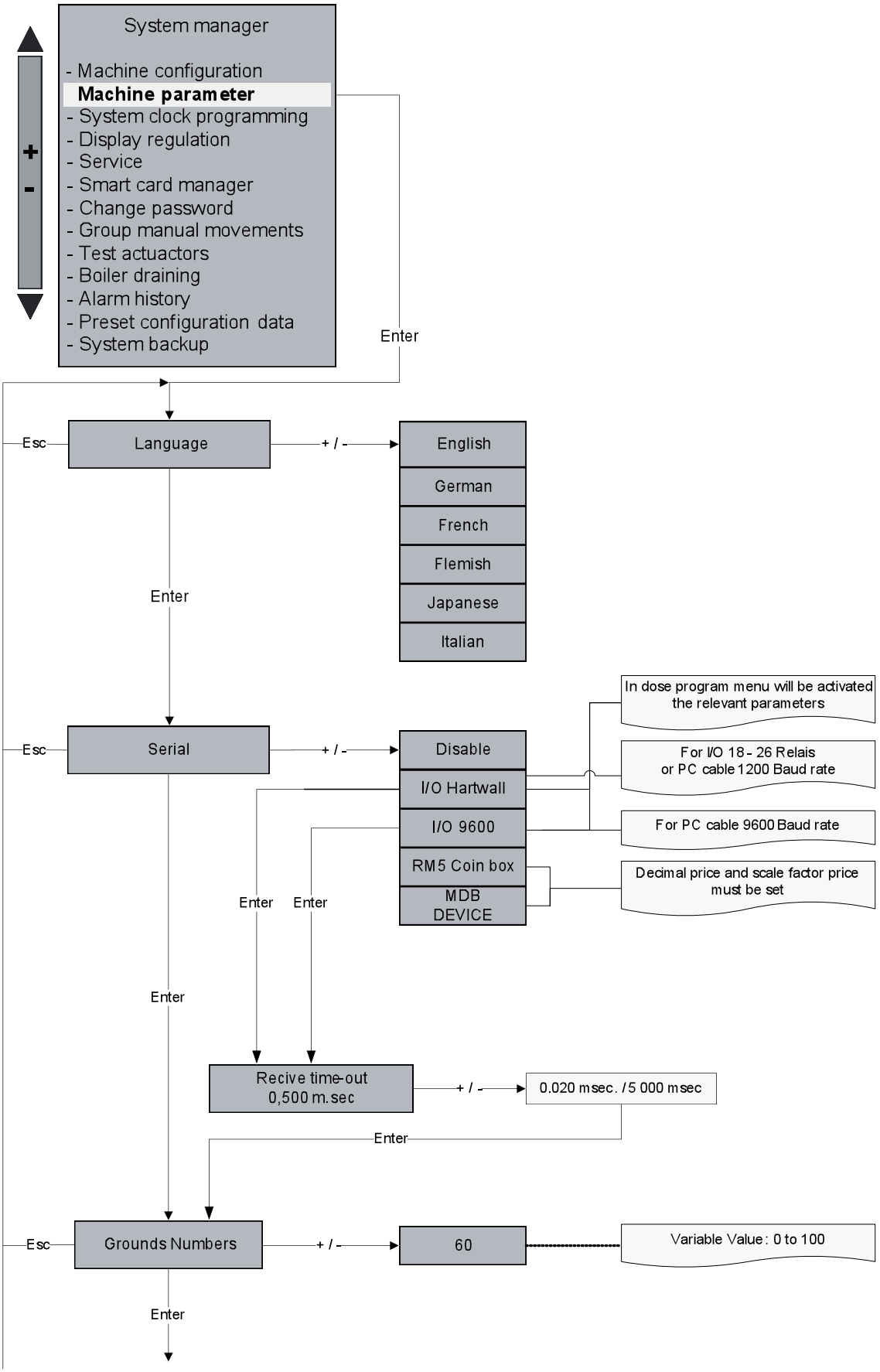
MACHINE CONFIGURATION

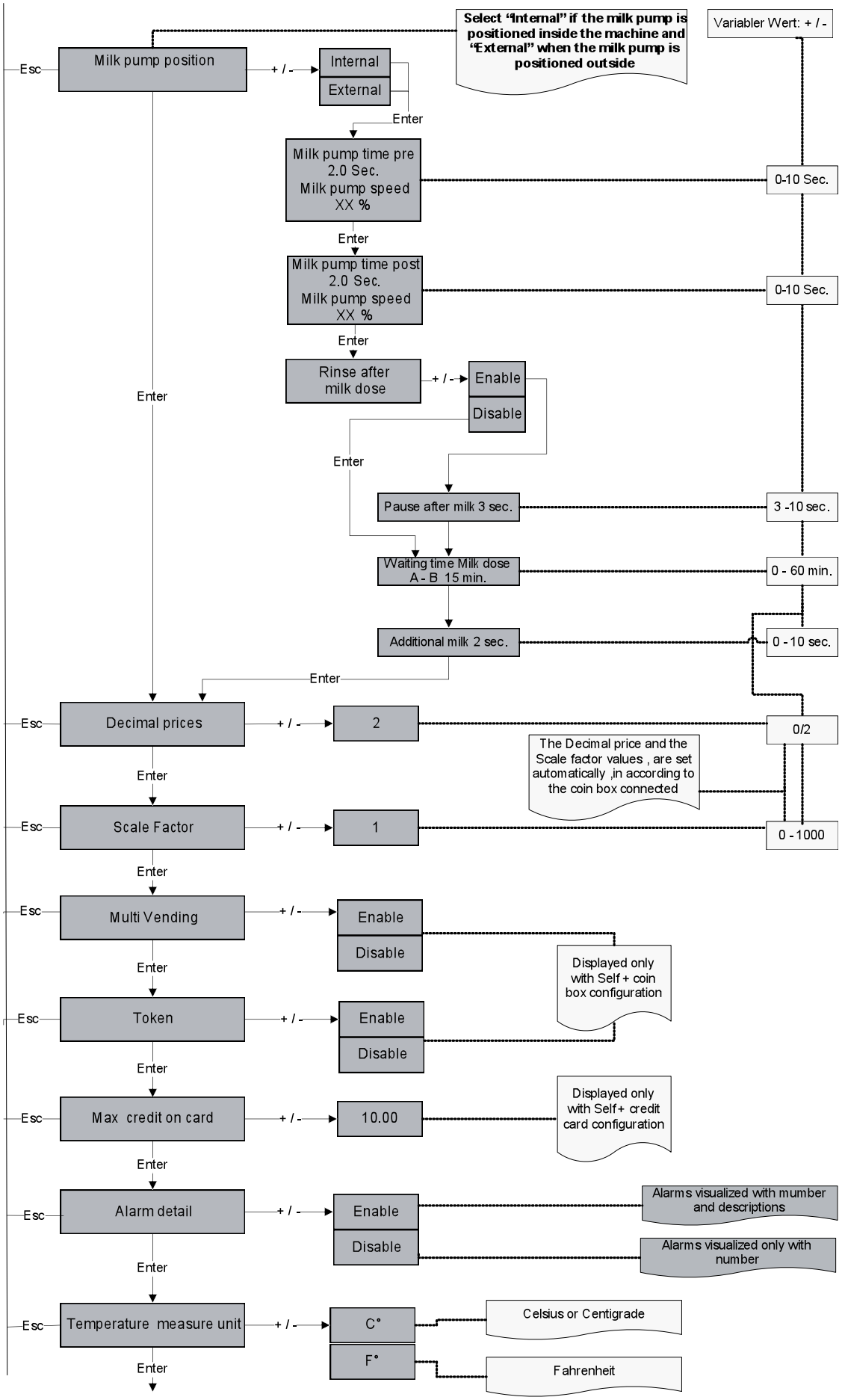

System manager
Machine configuration
- Machine parameter
- System clock programming
- Display regulation
- Service
- Smart card manager
- Change password
- Group manual movements
- Test actuactors
- Boiler draining
- Alarm history
- Preset configuration data
- System backup
+
-
Enter
Machine configuration
Main power
200-240 V mono
100-120 V mono
230-380-400 V Tri
Use: + / - keys to select the main power.
With the selection100/120 V. the "sequential heater" parameter is always enabled ..
Enter
Machine configuration
N° of Grinders
2
Use: + / - keys to select the number of grinders, 1 or 2.
Enter
Machine configuration
Pump type
Rotation
Use: + / - keys to select the pump type , rotation or vibration.
Enter
Enter
Machine configuration
Water Tank
Disable/Enable
Use: + / - keys to enable or disable the water tank.
Enter
Machine configuration
Tea Hot water sv.
From steam boiler
Use: + / - keys to select :
FROM STEAM BOILER : the hot water comes from the steam boiler.
FROM COFFEE BOILER : the hot water comes from the coffee boiler. (only for machines with custom hydraulic circuit
OPTIONAL COFFEE BOILER : (not available)
Enter
Machine configuration
N. of Dispenser– Mixer
1
Use: + / - keys to select 0 or 1
Dispenser - Mixer
Enter
Machine configuration
Steam boiler
Enabled
Use: + / - keys to enable or disable the steam boiler.
Enter

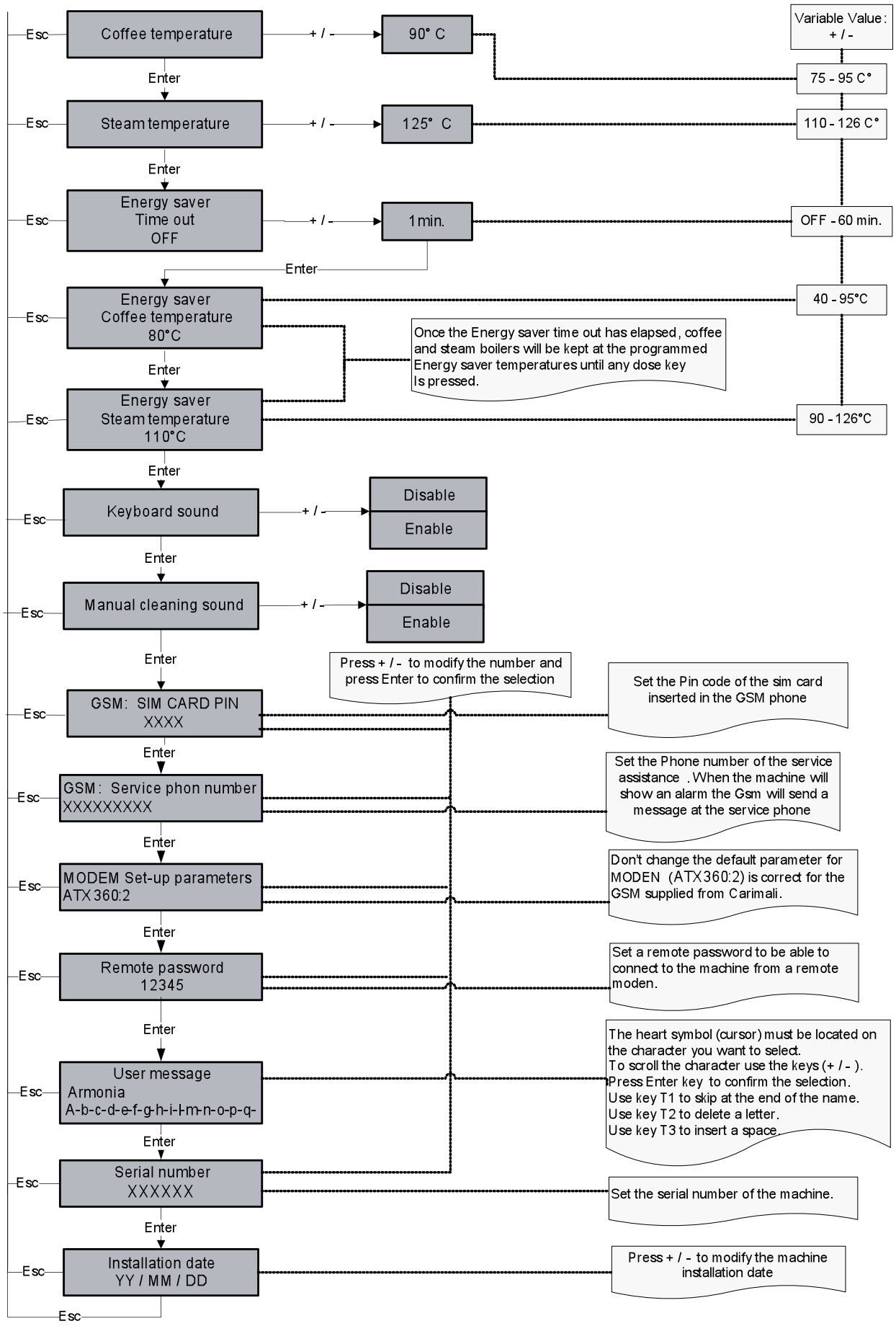

Machine configuration
Sequential Heater
Enabled
Use: + / - keys to enable or disable the sequential heater.
Enter
Machine configuration
Milker
Enabled
Use: + / - keys to enable or disable the automatic milk frother.
Enter
Machine configuration
Milk pump
Enabled
Use: + / - keys to enable or disable the milk pump.
Enter
Machine configuration
Power cleaner
Enabled
Use.: +/- keys to enabled or disabled the Power cleaner
Enter
Machine configuration
Fridge
Disabled
Use: + / - keys to enable or disable the milk level control inside the fridge (OPTIONAL).
Enter
Machine configuration
Machine type
Standard
Use: + / - keys to select one of these machine types:
- STANDARD
- WAITER CARDS
- SELF
- SELF + CREDIT CARD
- SELF + COIN BOX
- SELF + CREDIT CARD+ COIN BOX
WARNING
The machine type that use cards are available only for coffee machine with transponder installed.
Enter
Machine configuration
Remote controller
Desabled
Use: + / - keys to enable or disable the remote controller.
Select Enabled to carry out Remote (GSM) or Local data download by means of lap top with Wizard program
Enter
PLEASE NOTE : the following functions will be displayed only if some of previous parameters , machine configurations menu, have been modified .
Enter
Machine configuration
Doses buttons preset?
Please confirm
NO
+ / -
YES
NO
If one of these configurations is modified :
- STEAM BOILER
- MILKER
- MILK PUMP
- MACHINE TYPE
we suggest to select YES and confirm the Doses buttons preset.
Enter
Enter
Machine configuration
Doses buttons preset?
Enter
Machine configuration
Reset doses counter?
Please confirm
NO
+ / -
YES
NO
If one of these configurations is modified :
- STEAM BOILER
- MILKER
- MILK PUMP
- MACHINE TYPE
we suggest to select YES and confirm the Reset doses counter.
Enter
Enter
Machine configuration
Reset doses counter?

MACHINE PARAMETER

PLEASE NOTE:
some of the following parameters may not be displayed depending to the machine configuration previously programmed.

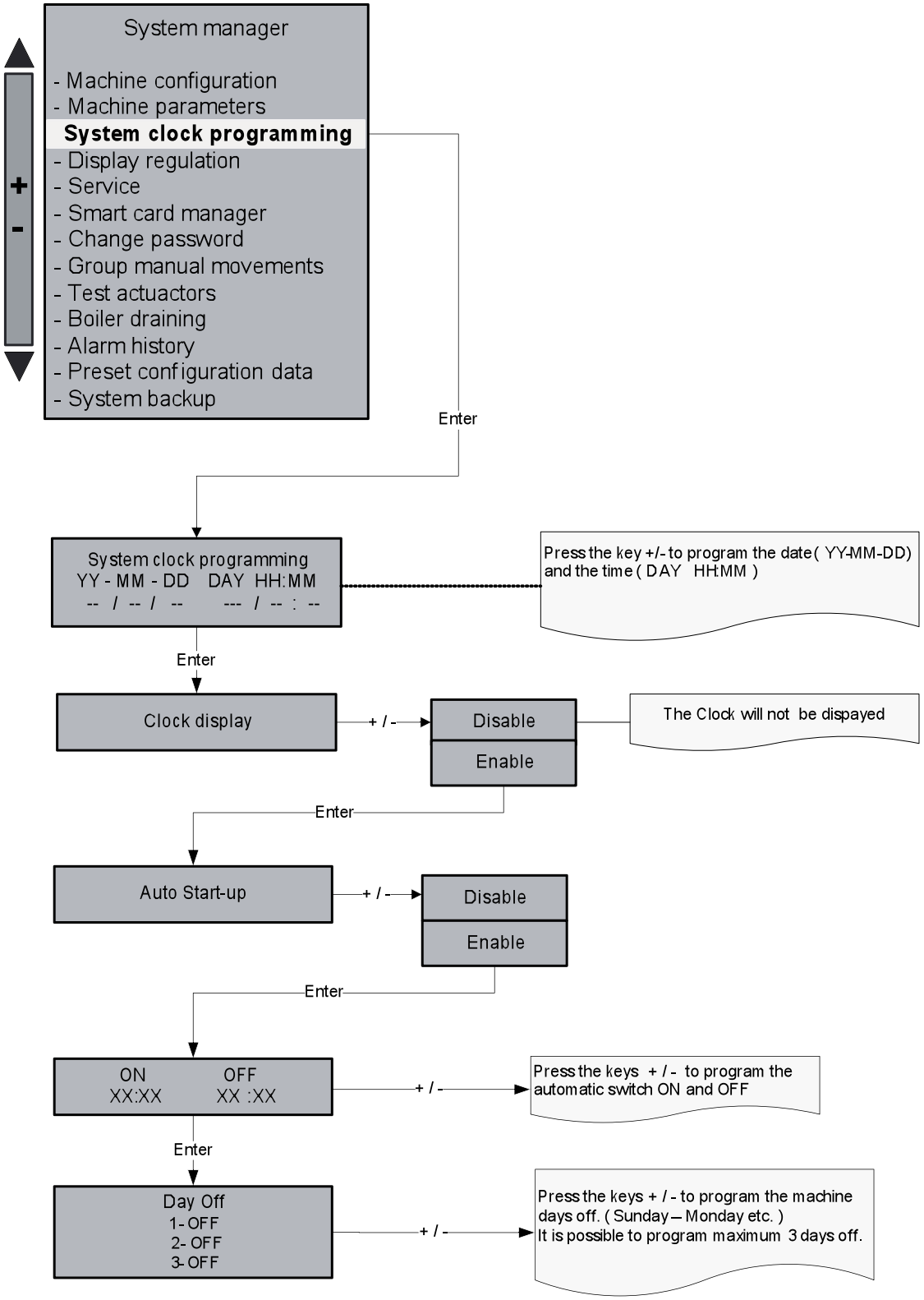



Select "Internal" if the milk pump is positioned inside the machine and "External" when the milk pump is positioned outside
Variabler Wert: + / -
Esc
Milk pump position
+ / -
Internal
External
Enter
Milk pump time pre 2.0 Sec. Milk pump speed XX %
0-10 Sec.
Enter
Milk pump time post 2.0 Sec. Milk pump speed XX %
0-10 Sec.
Enter
Rinse after milk dose
+ / -
Enable
Disable
Enter
Enter
Pause after milk 3 sec.
3 -10 sec.
Waiting time Milk dose A - B 15 min.
0 - 60 min.
Additional milk 2 sec.
0 - 10 sec.
Enter
Esc
Decimal prices
+ / -
2
0/2
The Decimal price and the Scale factor values , are set automatically ,in according to the coin box connected
Enter
Esc
Scale Factor
+ / -
1
0 - 1000
Enter
Esc
Multi Vending
+ / -
Enable
Disable
Displayed only with Self + coin box configuration
Enter
Esc
Token
+ / -
Enable
Disable
Enter
Esc
Max credit on card
+ / -
10.00
Displayed only with Self + credit card configuration
Enter
Esc
Alarm detail
+ / -
Enable
Disable
Alarms visualized with mumber and descriptions
Alarms visualized only with number
Enter
Esc
Temperature measure unit
+ / -
C°
F°
Celsius or Centigrade
Fahrenheit
Enter

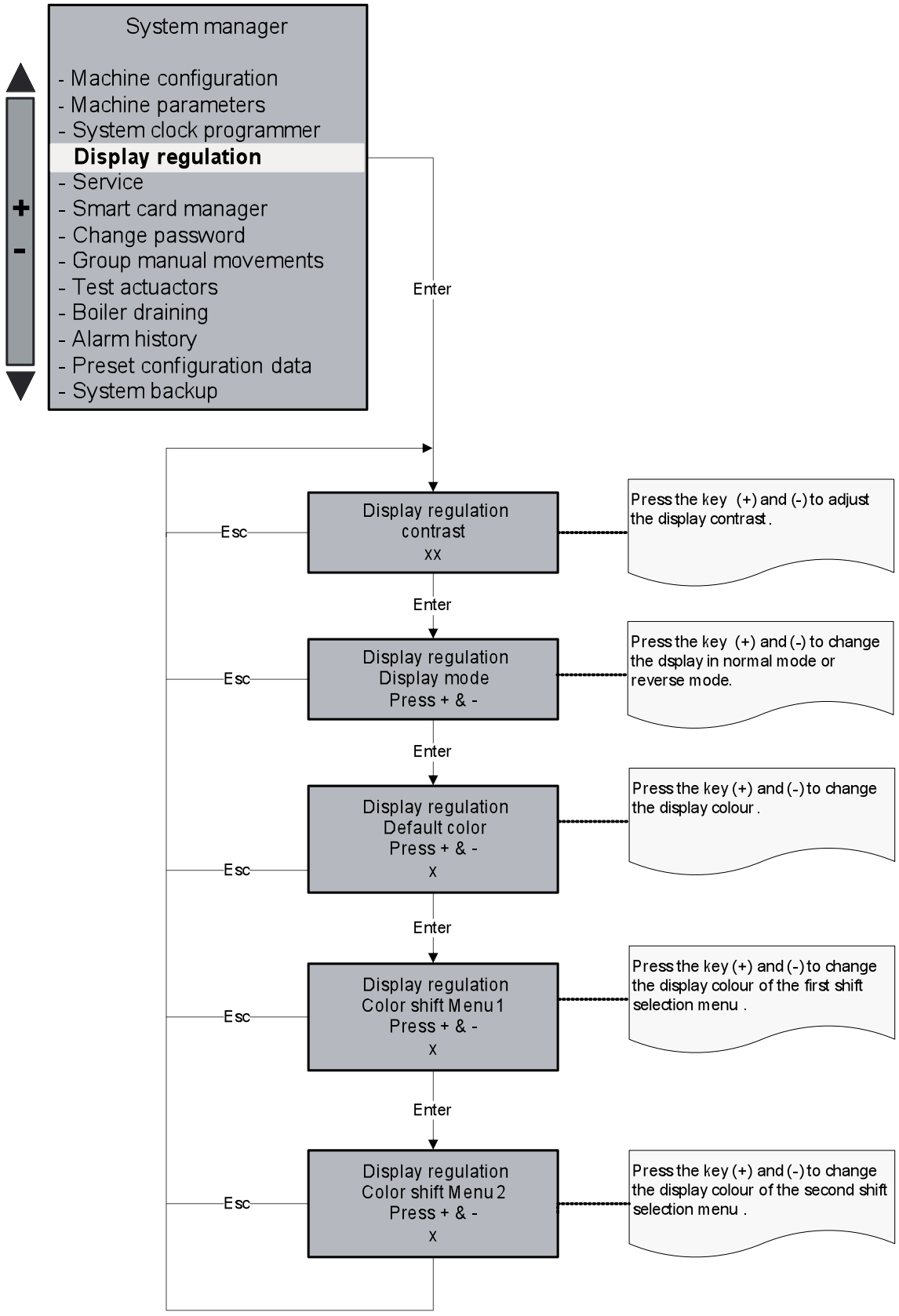


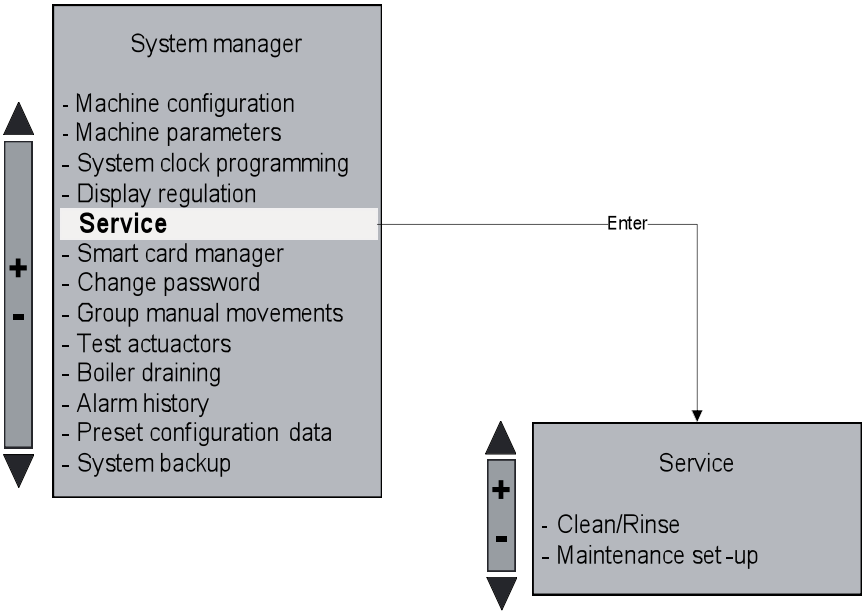
Please note: for machines without GSM it is possible to carry out a Local data download by setting the Serial number and the Remote password only. (For more information see the Wizard manual).

SYSTEM CLOCK SET-UP

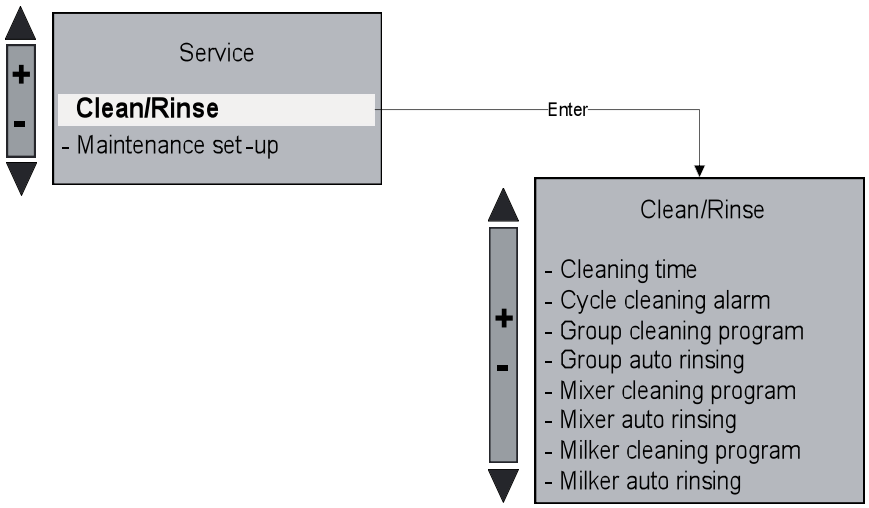


DISPLAY REGULATION

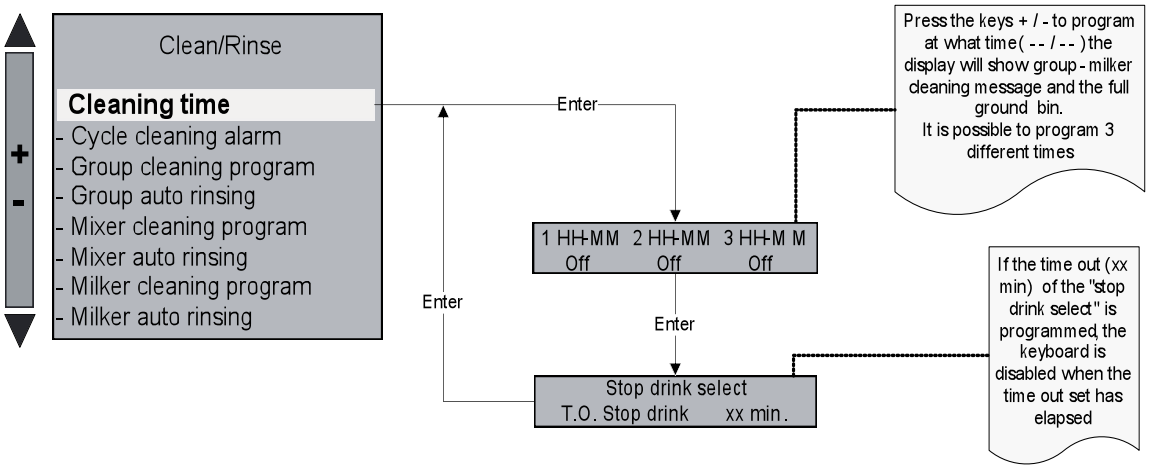




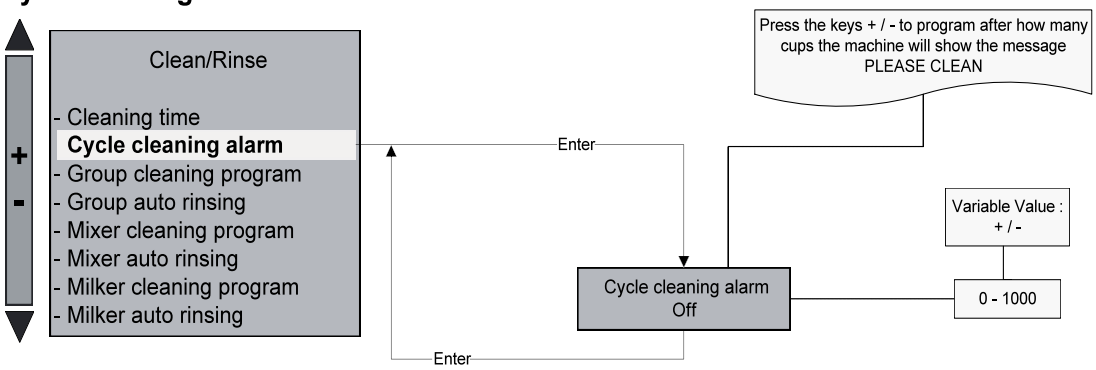
Clean rinse



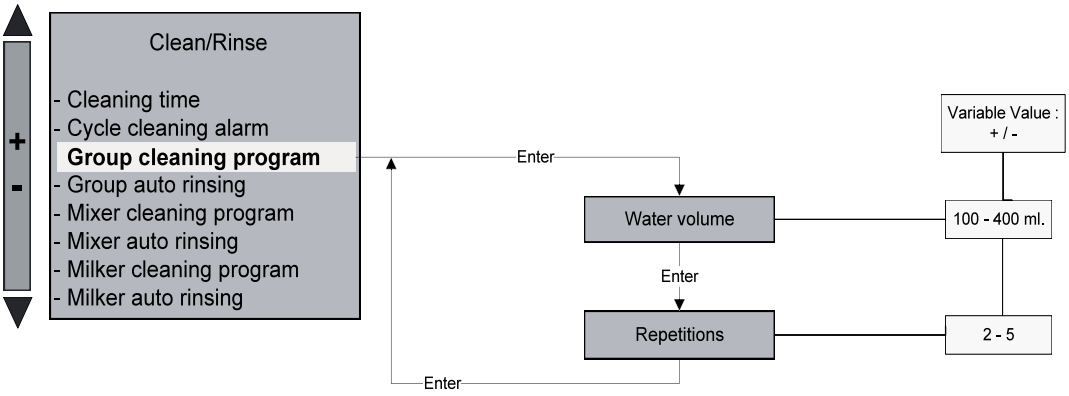
Cleaning time


Clean/Rinse
Cleaning time
- Cycle cleaning alarm
- Group cleaning program
- Group auto rinsing
- Mixer cleaning program
- Mixer auto rinsing
- Milker cleaning program
- Milker auto rinsing
Enter
Press the keys + / - to program at what time (-- / --) the display will show group - milker cleaning message and the full ground bin.
It is possible to program 3 different times
1 HH-MM Off
2 HH-MM Off
3 HH-M M Off
Enter
Enter
Stop drink select
T.O. Stop drink xx min.
If the time out (xx min) of the "stop drink select" is programmed, the keyboard is disabled when the time out set has elapsed

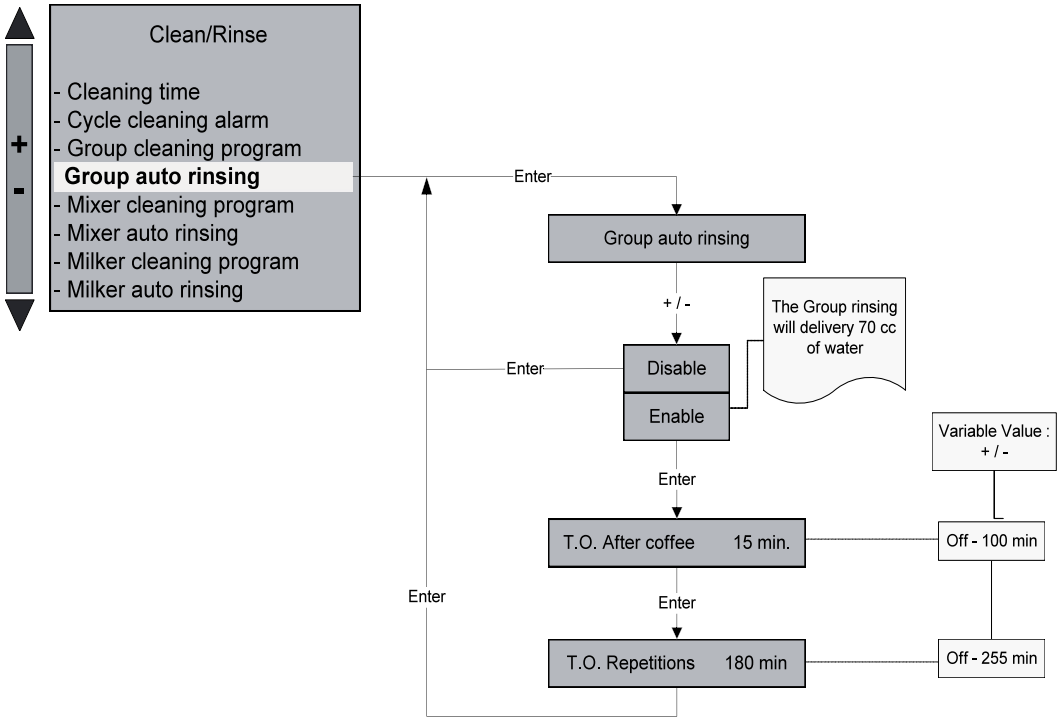
Cycle cleaning alarm


Clean/Rinse
- Cleaning time
Cycle cleaning alarm
- Group cleaning program
- Group auto rinsing
- Mixer cleaning program
- Mixer auto rinsing
- Milker cleaning program
- Milker auto rinsing
+
-
Enter
Press the keys + / - to program after how many cups the machine will show the message PLEASE CLEAN
Variable Value : + / -
Cycle cleaning alarm Off
0 - 1000
Enter

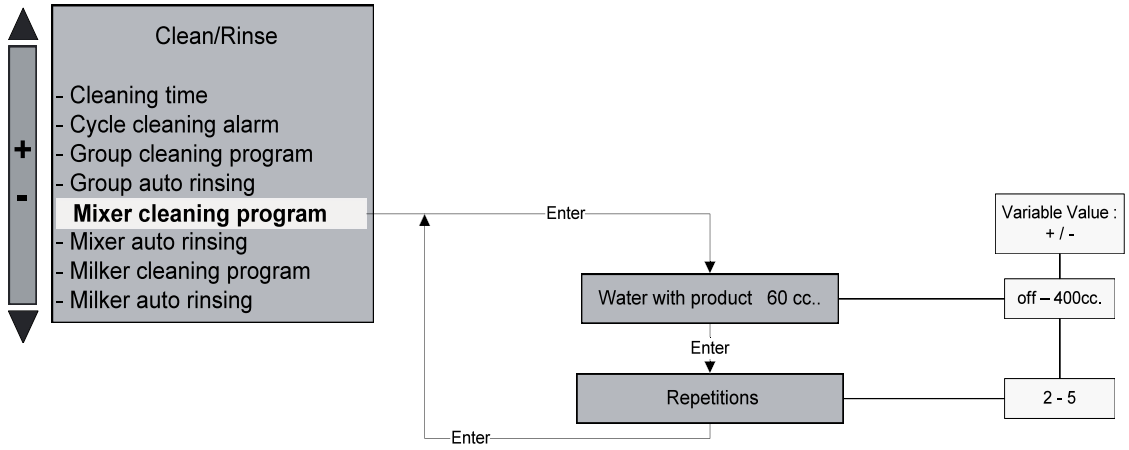
Group cleaning program



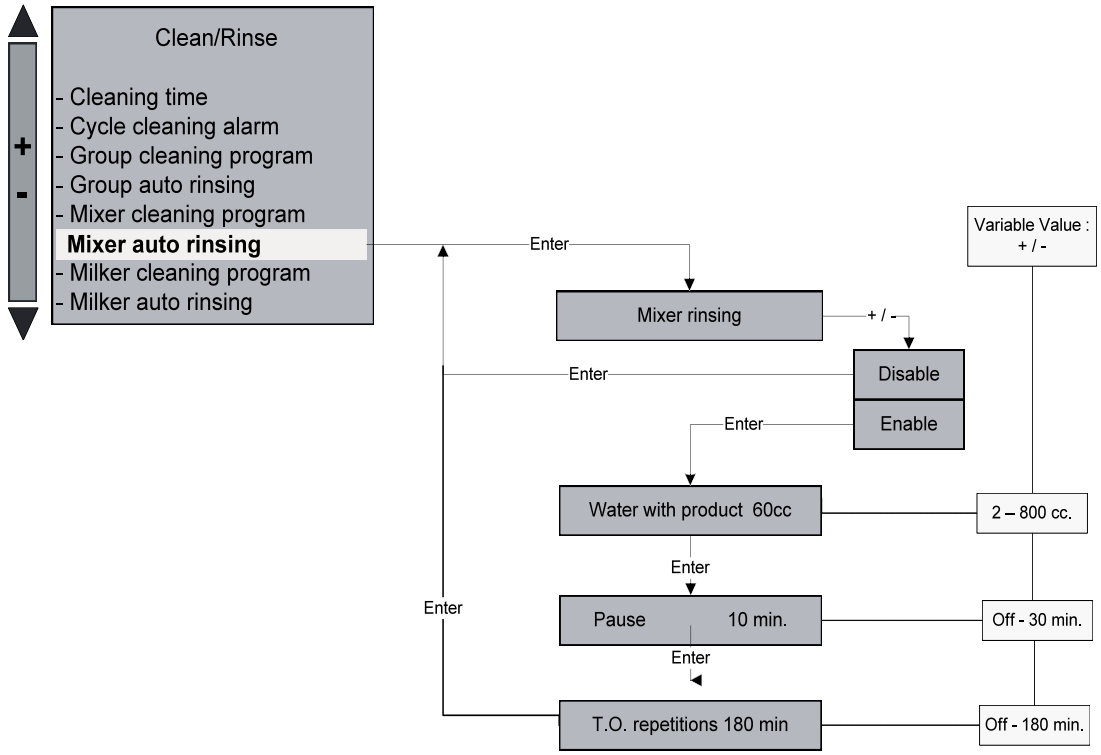
Group auto rinsing



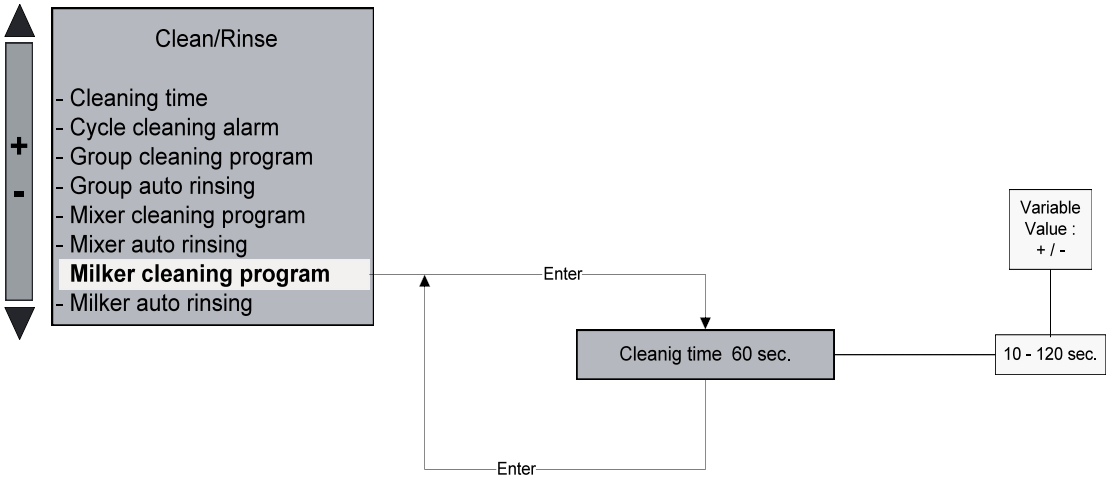
Mixer cleaning program



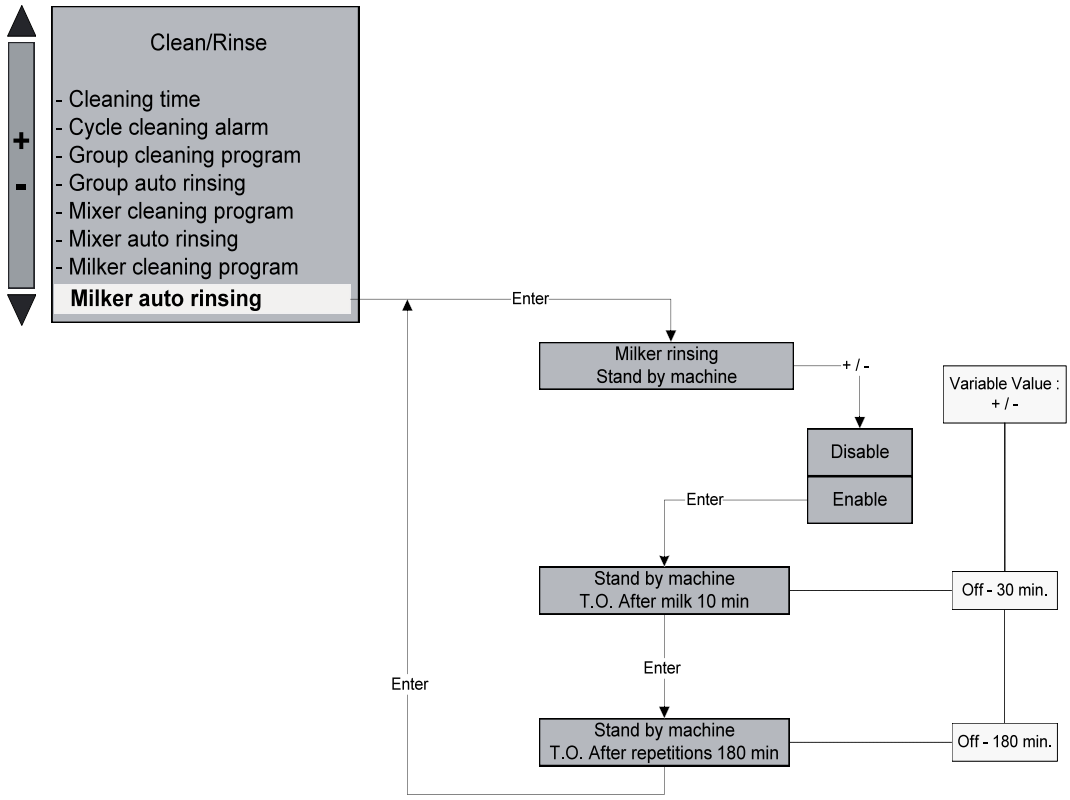
Mixer auto rinsing



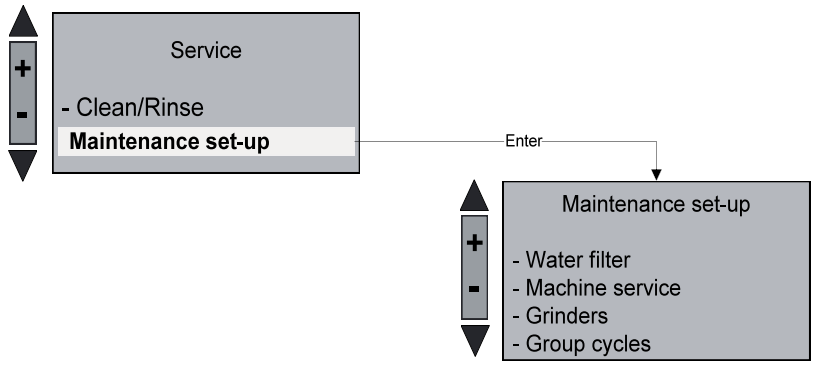
Milker cleaning program



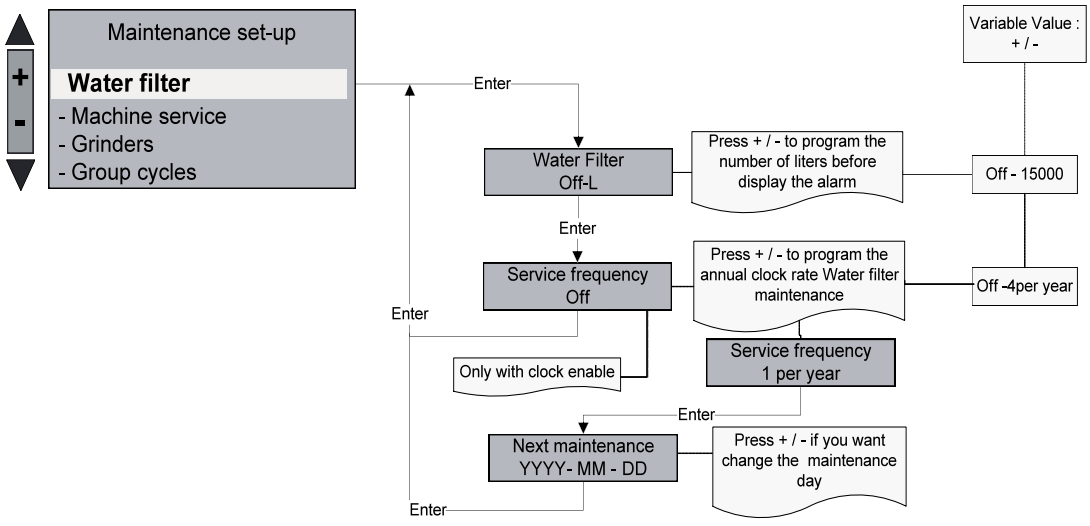
Milker auto rinsing



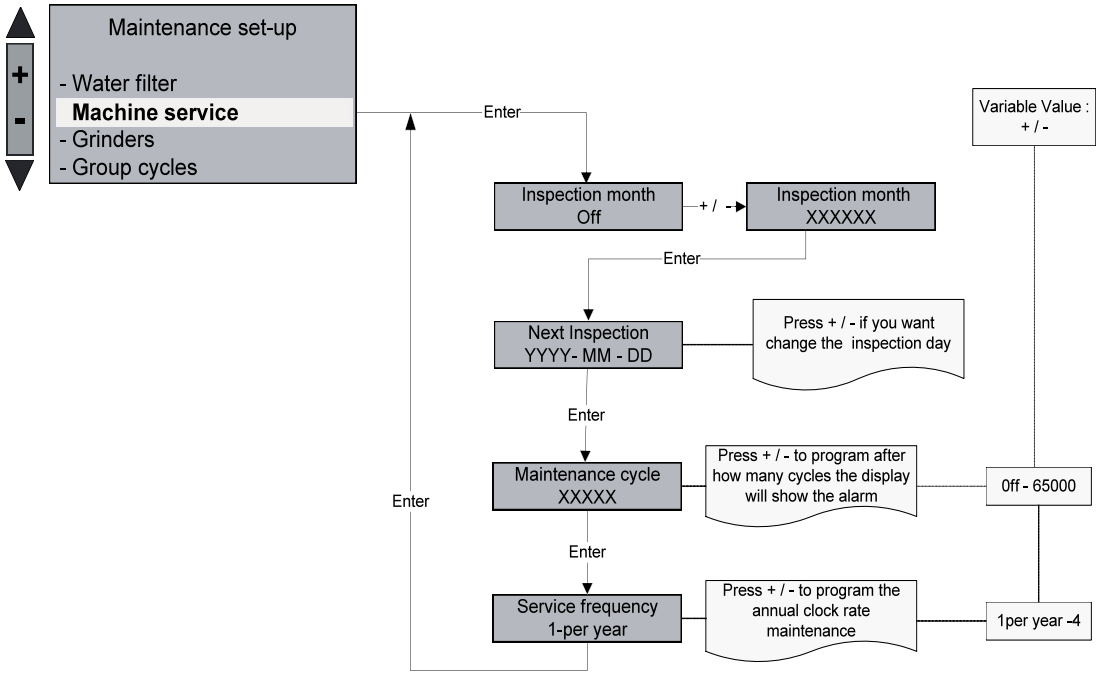
Maintenance set-up



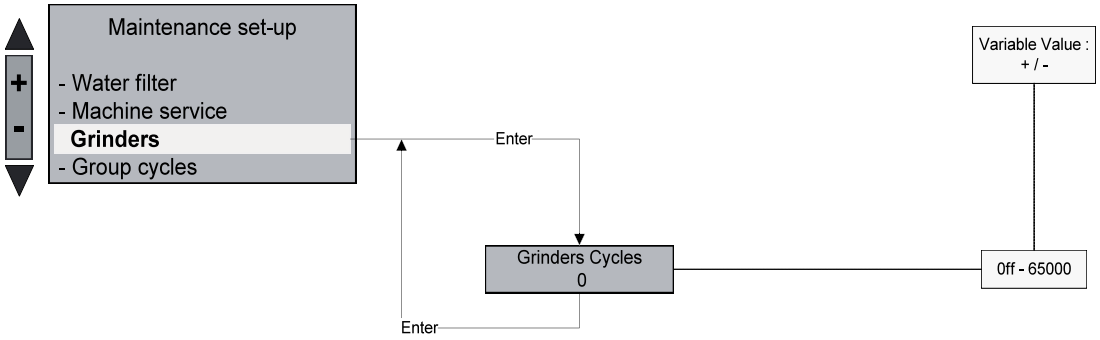
Water filter



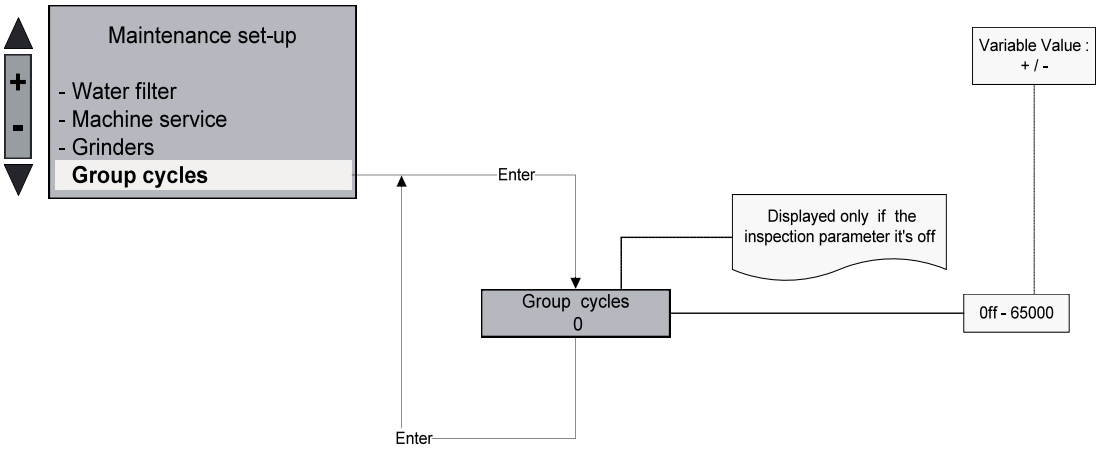
Machine service



Grinders



Group cycles

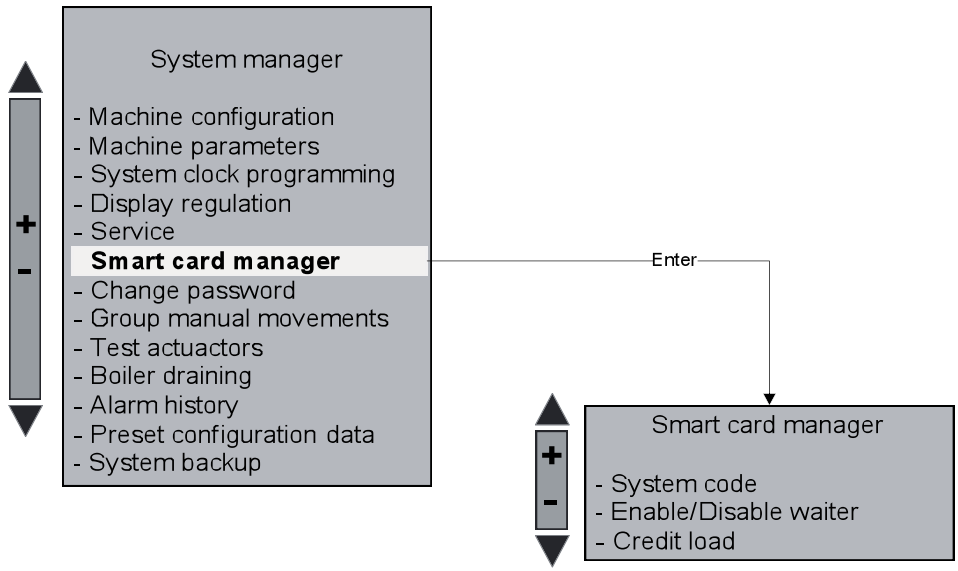


SMART CARD MANAGER

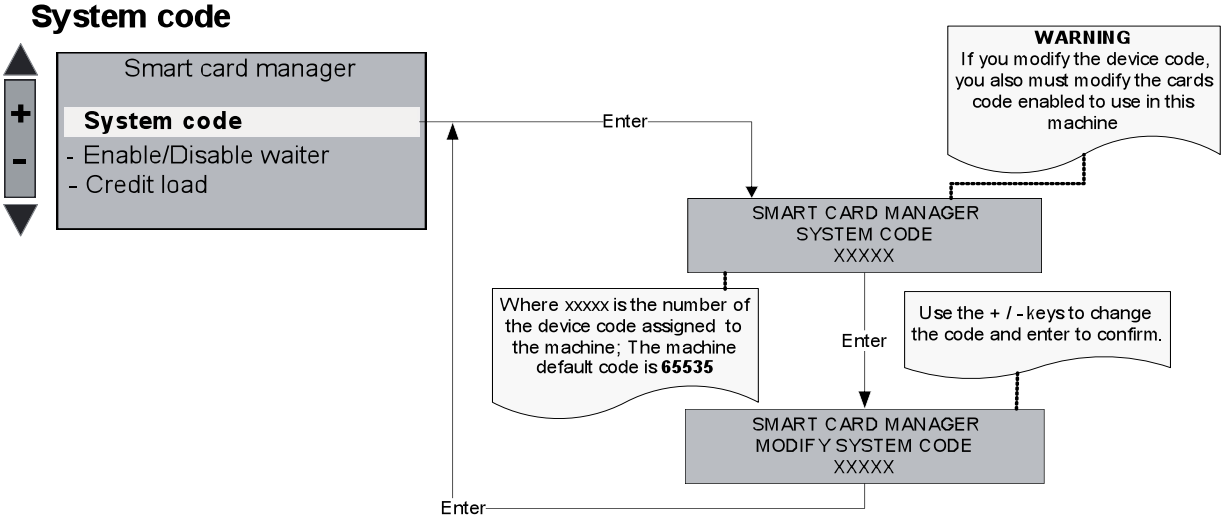
PLEASE NOTE:

A THE SMART CARD MANAGER IS DISPLAYED ONLY FOR COFFEE MACHINE WITH TRANSPONDER INSTALLED.

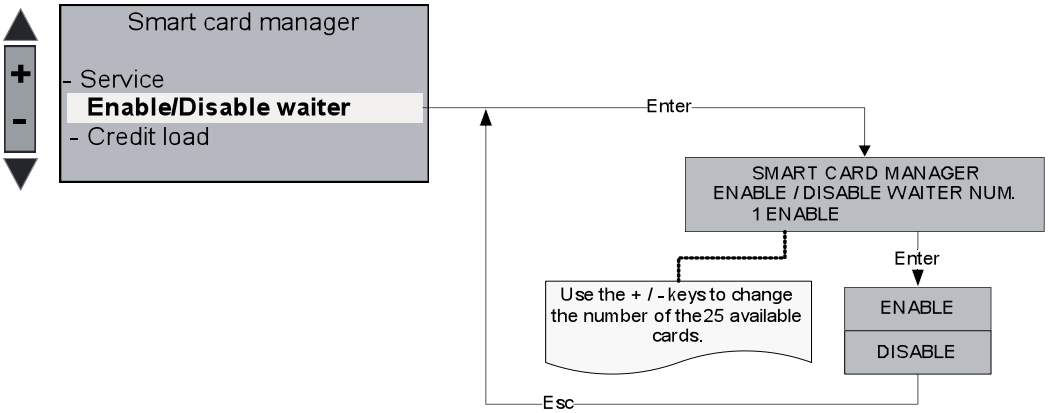
B TO CREATE A NEW CARD (TECHNICIAN - SERVICE - OWNER - ROASTER AND WAITER) ITS NECESSARY USE AN EXTERNAL PC TOOL.



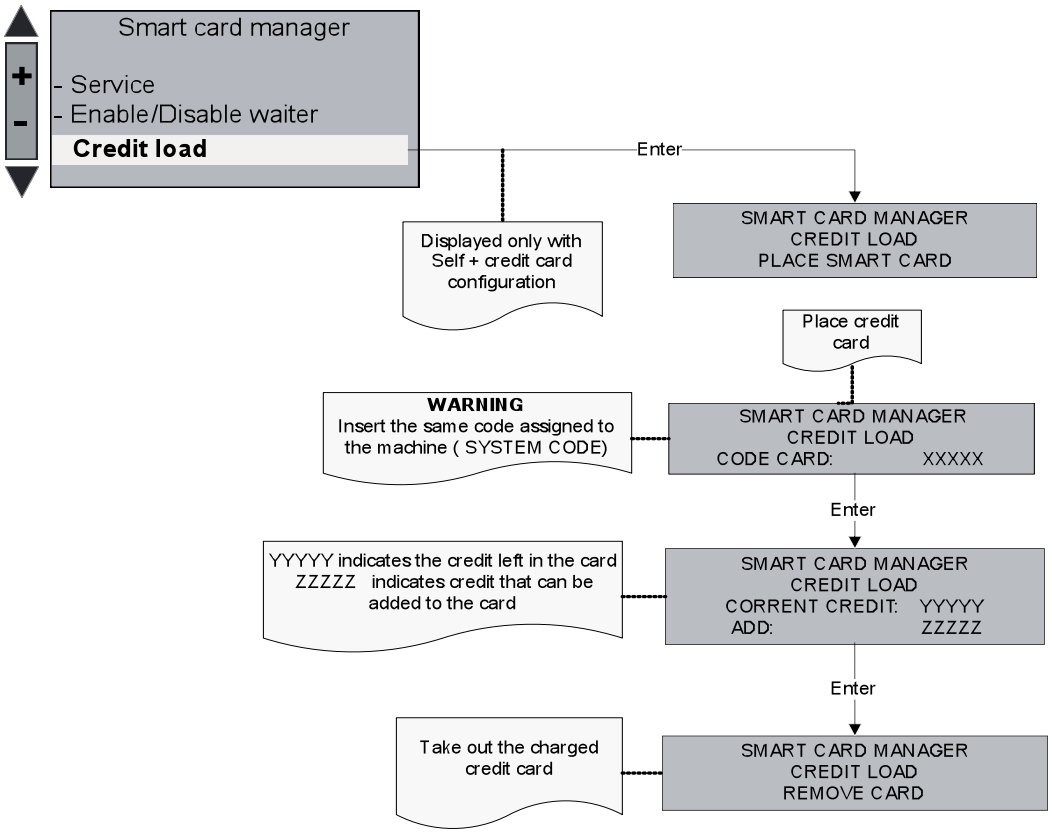
System code


Smart card manager
System code
- Enable/Disable waiter
- Credit load
Enter
WARNING
If you modify the device code, you also must modify the cards code enabled to use in this machine
SMART CARD MANAGER
SYSTEM CODE
XXXXX
Where xxxxx is the number of the device code assigned to the machine; The machine default code is 65535
Enter
Use the + / - keys to change the code and enter to confirm.
SMART CARD MANAGER
MODIFY SYSTEM CODE
XXXXX
Enter

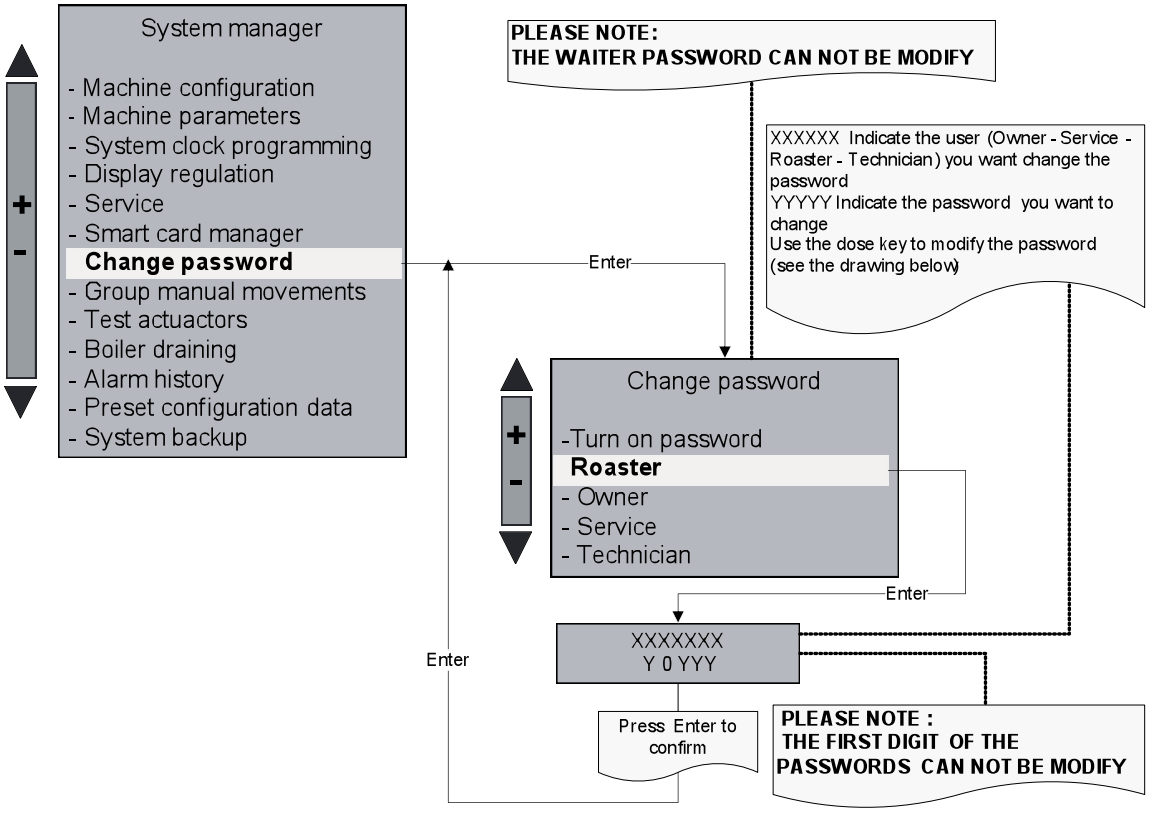
Enable/Disable waiter



Credit load


Smart card manager
- Service
- Enable/Disable waiter
Credit load
Enter
Displayed only with Self + credit card configuration
SMART CARD MANAGER
CREDIT LOAD
PLACE SMART CARD
Place credit card
WARNING
Insert the same code assigned to the machine (SYSTEM CODE)
SMART CARD MANAGER
CREDIT LOAD
CODE CARD: XXXXX
Enter
YYYYY indicates the credit left in the card
ZZZZZ indicates credit that can be added to the card
SMART CARD MANAGER
CREDIT LOAD
CORRENT CREDIT: YYYYY
ADD: ZZZZZ
Enter
Take out the charged credit card
SMART CARD MANAGER
CREDIT LOAD
REMOVE CARD

CHANGE PASSWORD

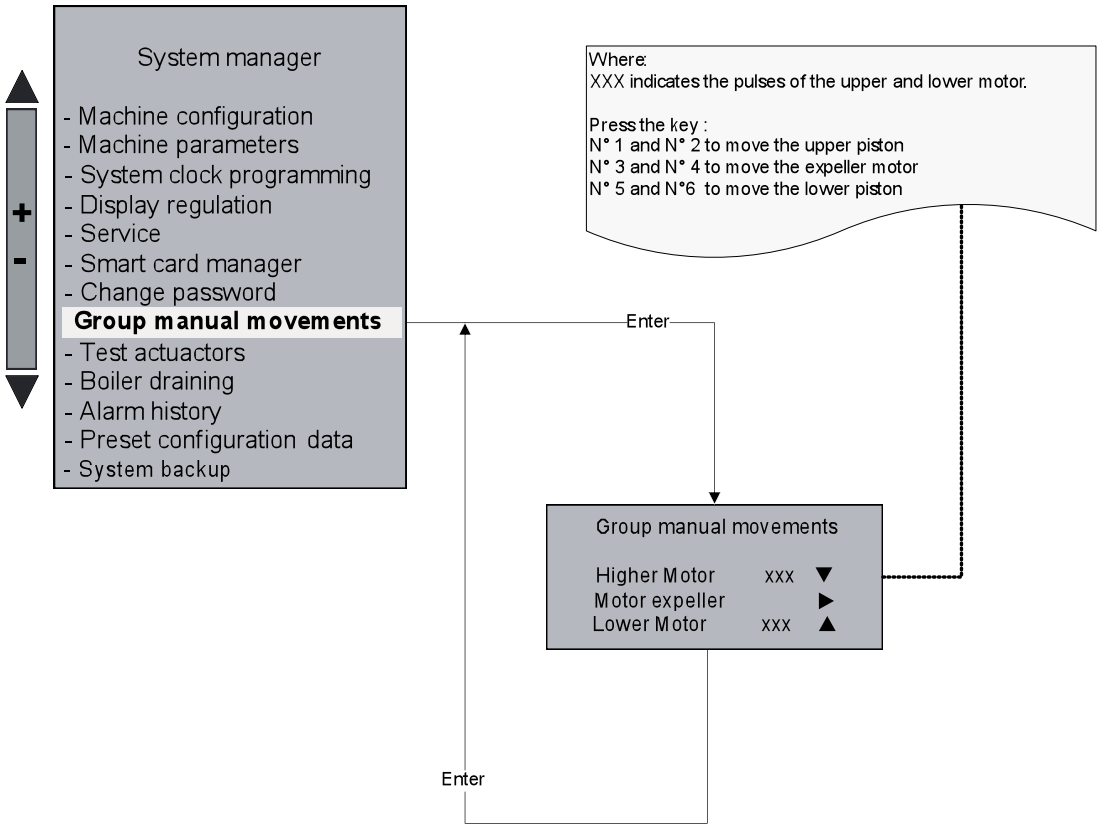


Please note:
If the TURN ON PASSWORD is enabled, to turn on the machine is necessary insert the password.

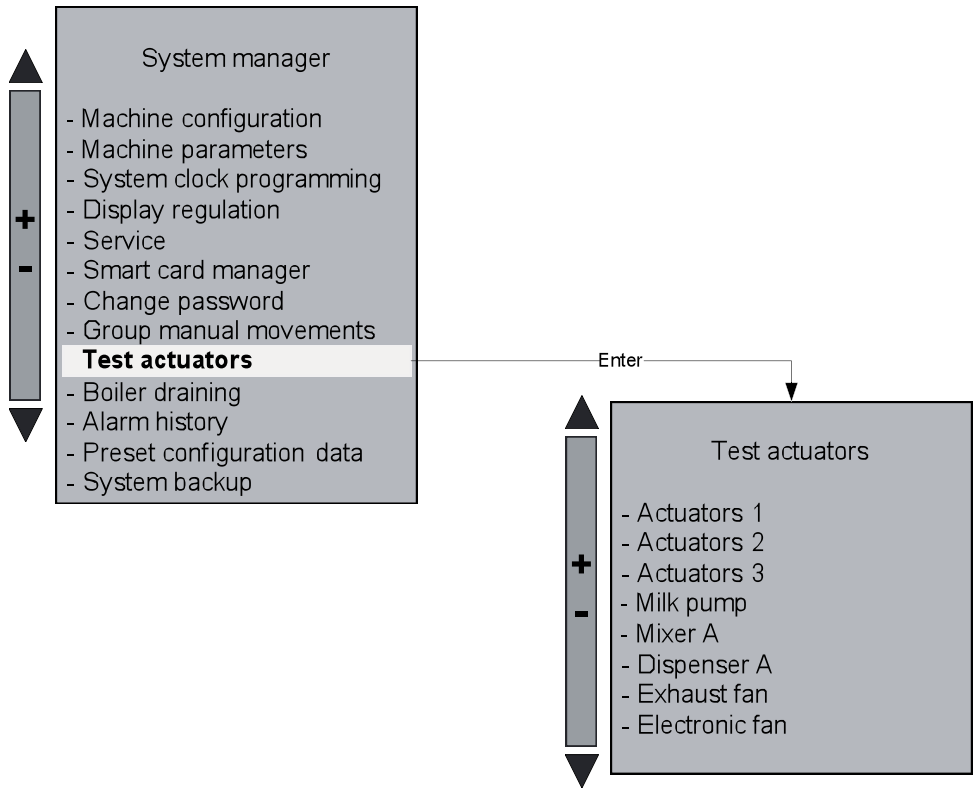
KEY REFERENCE FOR PASSWORD

FOLLOWING PASSWORD CAN BE MODIFY						
		Waiter	**Roaster**	**Owner**	**Service**	**Technician**
ENTERED PASSWORD	Waiter					
	Roaster		X			
	Owner		X	X		
	Service		X	X	X	
	Technician		X	X	X	X

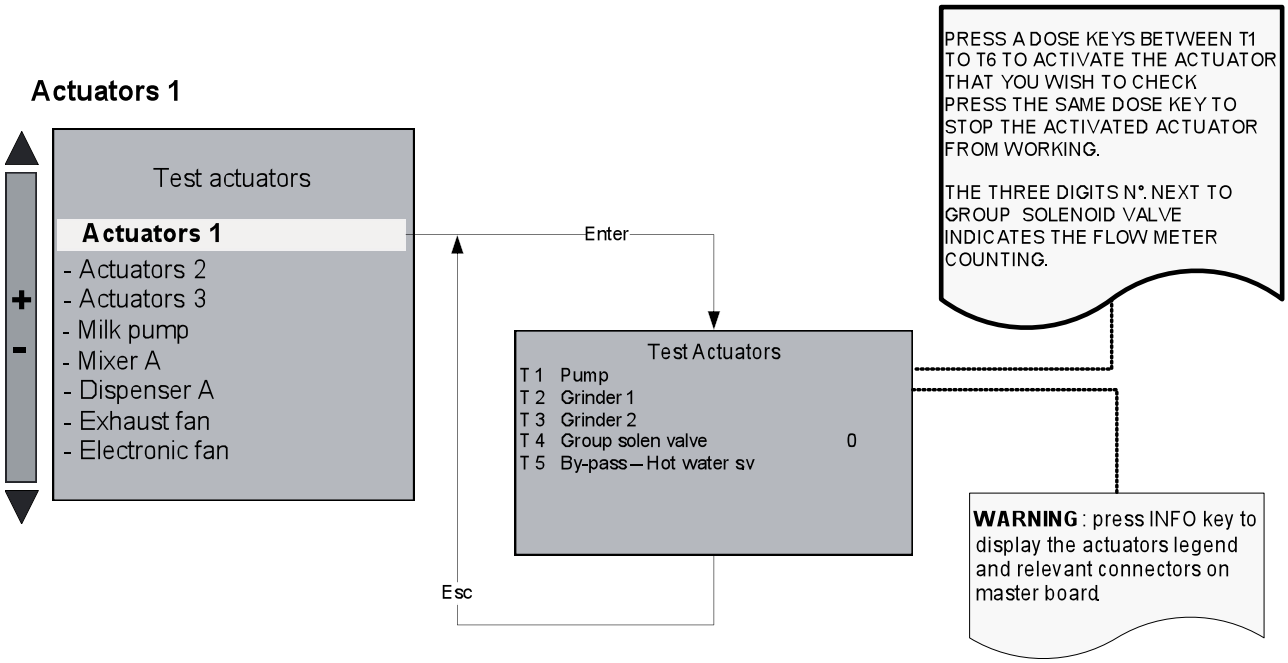
GROUP MANUAL MOVEMENTS



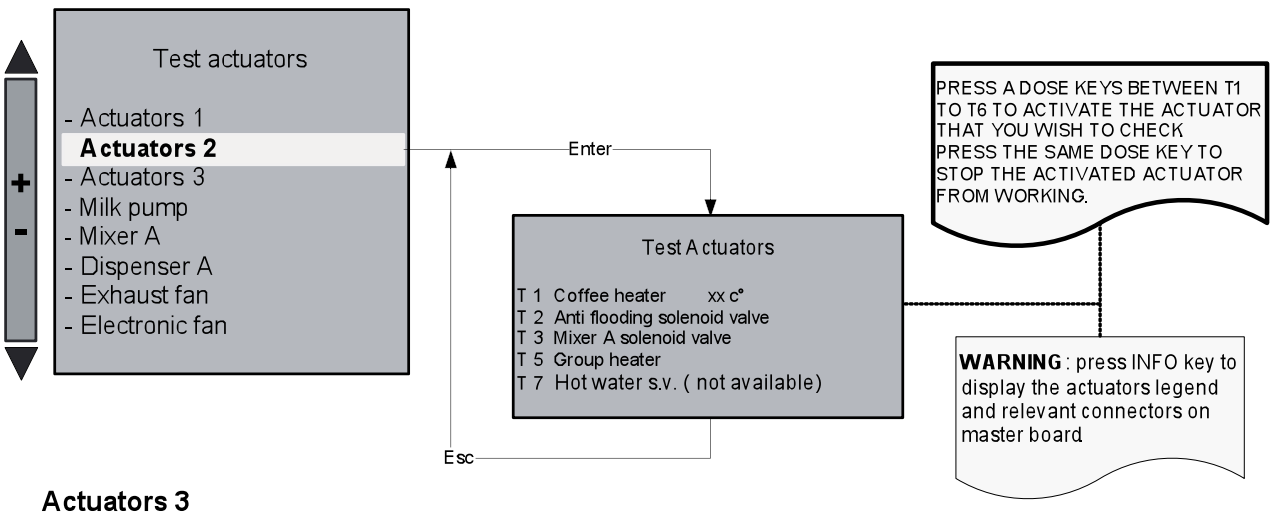
TEST ACTUATORS



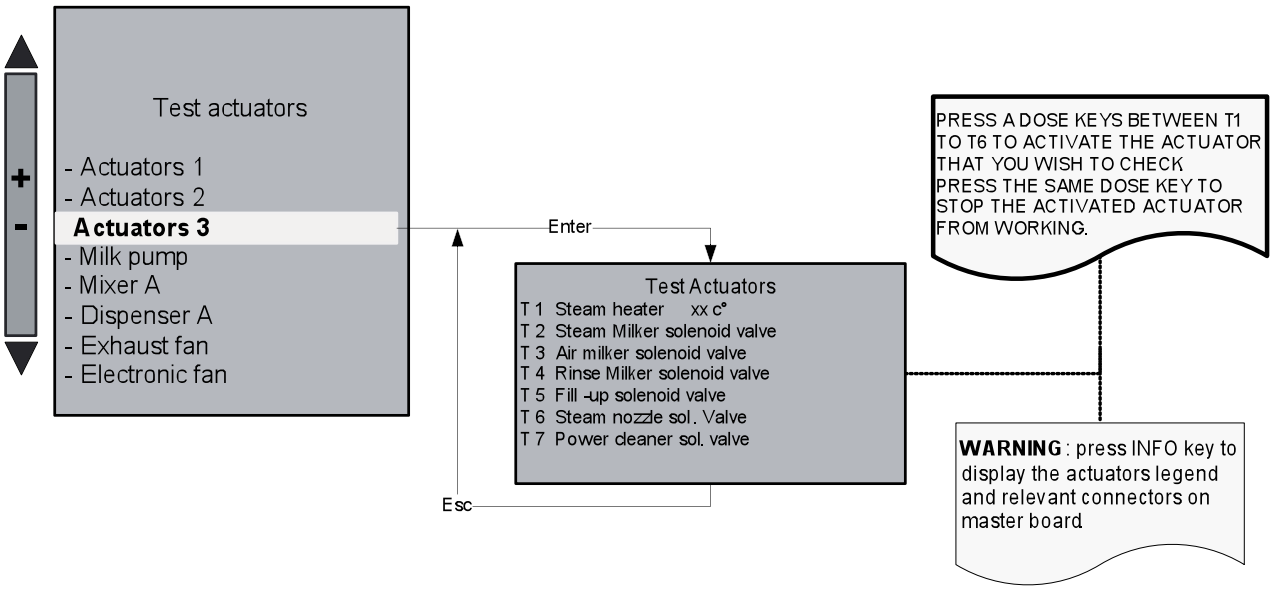
Actuators 1


Test actuators
Actuators 1
- Actuators 2
- Actuators 3
- Milk pump
- Mixer A
- Dispenser A
- Exhaust fan
- Electronic fan
Enter
Test Actuators
T 1 Pump
T 2 Grinder 1
T 3 Grinder 2
T 4 Group solen valve 0
T 5 By-pass – Hot water sv
Esc
PRESS A DOSE KEYS BETWEEN T1 TO T6 TO ACTIVATE THE ACTUATOR THAT YOU WISH TO CHECK
PRESS THE SAME DOSE KEY TO STOP THE ACTIVATED ACTUATOR FROM WORKING.
THE THREE DIGITS N°. NEXT TO GROUP SOLENOID VALVE INDICATES THE FLOW METER COUNTING.
WARNING : press INFO key to display the actuators legend and relevant connectors on master board.

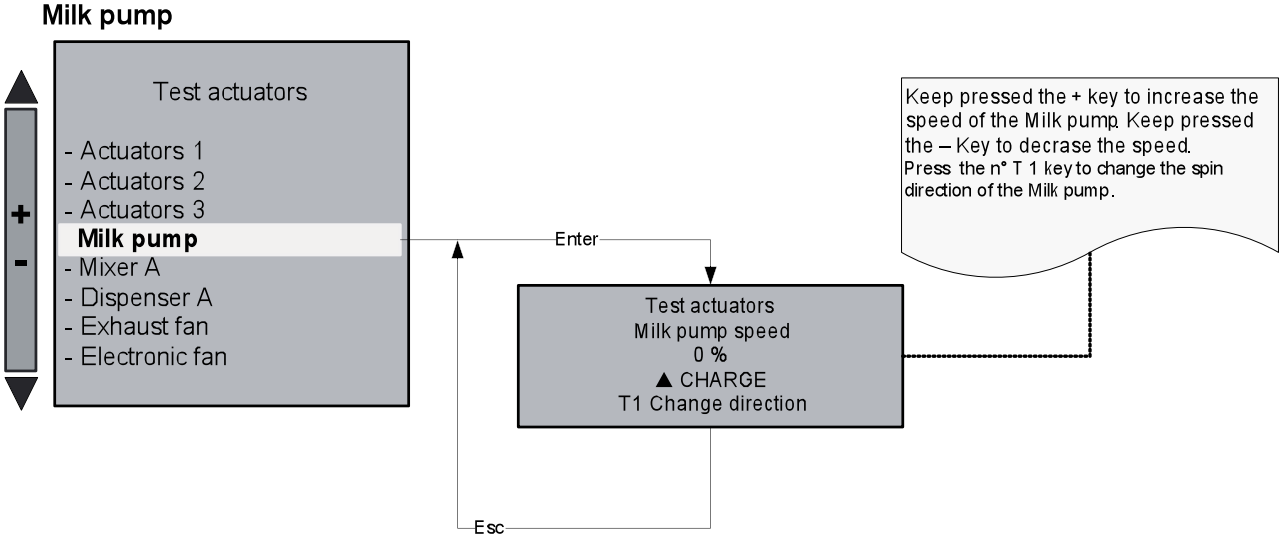
Actuators 2


Test actuators
- Actuators 1
Actuators 2
- Actuators 3
- Milk pump
- Mixer A
- Dispenser A
- Exhaust fan
- Electronic fan
+
-
Enter
Esc
Test Actuators
T 1 Coffee heater xx c°
T 2 Anti flooding solenoid valve
T 3 Mixer A solenoid valve
T 5 Group heater
T 7 Hot water s.v. (not available)
PRESS A DOSE KEYS BETWEEN T1 TO T6 TO ACTIVATE THE ACTUATOR THAT YOU WISH TO CHECK
PRESS THE SAME DOSE KEY TO STOP THE ACTIVATED ACTUATOR FROM WORKING.
WARNING : press INFO key to display the actuators legend and relevant connectors on master board.

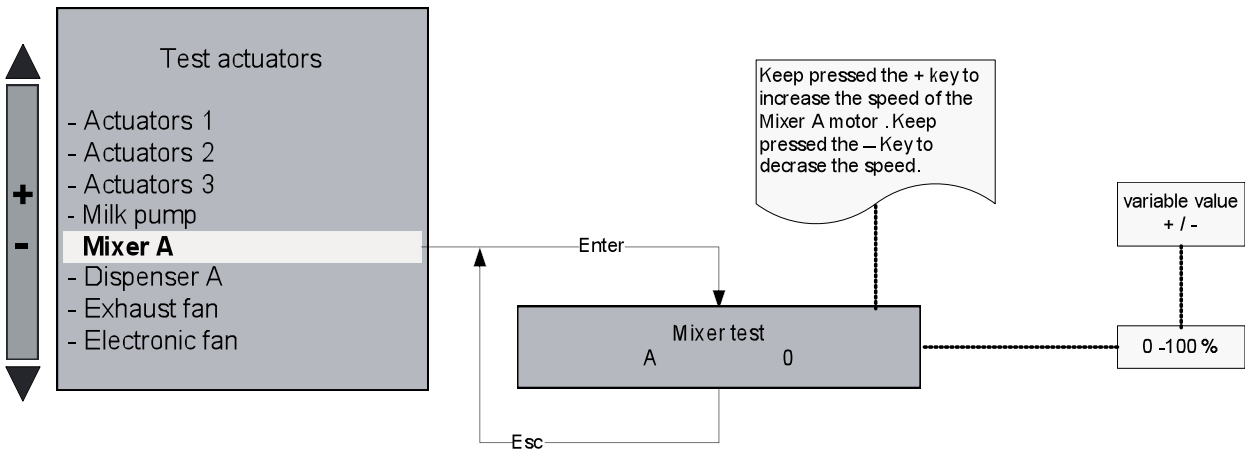
Actuators 3


Test actuators
- Actuators 1
- Actuators 2
Actuators 3
- Milk pump
- Mixer A
- Dispenser A
- Exhaust fan
- Electronic fan
+
-
Enter
Esc
Test Actuators
T 1 Steam heater xx c°
T 2 Steam Milker solenoid valve
T 3 Air milker solenoid valve
T 4 Rinse Milker solenoid valve
T 5 Fill -up solenoid valve
T 6 Steam nozzle sol. Valve
T 7 Power cleaner sol. valve
PRESS A DOSE KEYS BETWEEN T1 TO T6 TO ACTIVATE THE ACTUATOR THAT YOU WISH TO CHECK
PRESS THE SAME DOSE KEY TO STOP THE ACTIVATED ACTUATOR FROM WORKING.
WARNING : press INFO key to display the actuators legend and relevant connectors on master board.

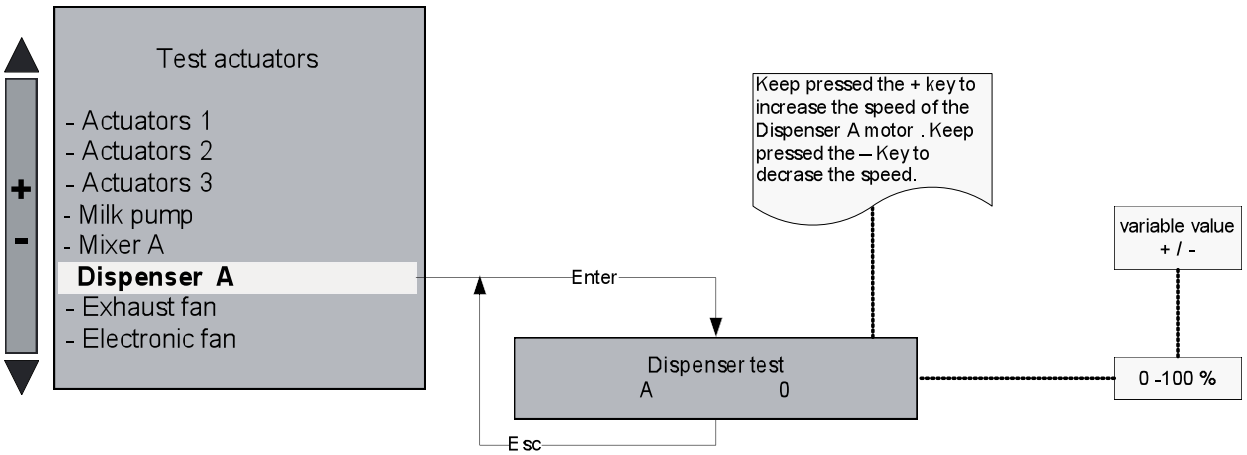
Milk pump



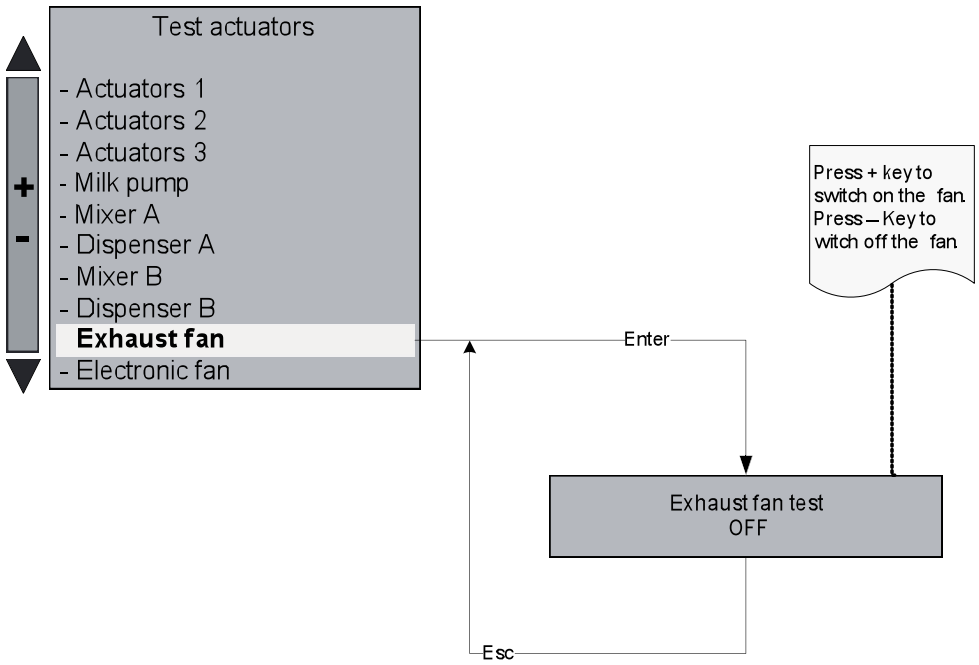
Mixer A



Dispenser A

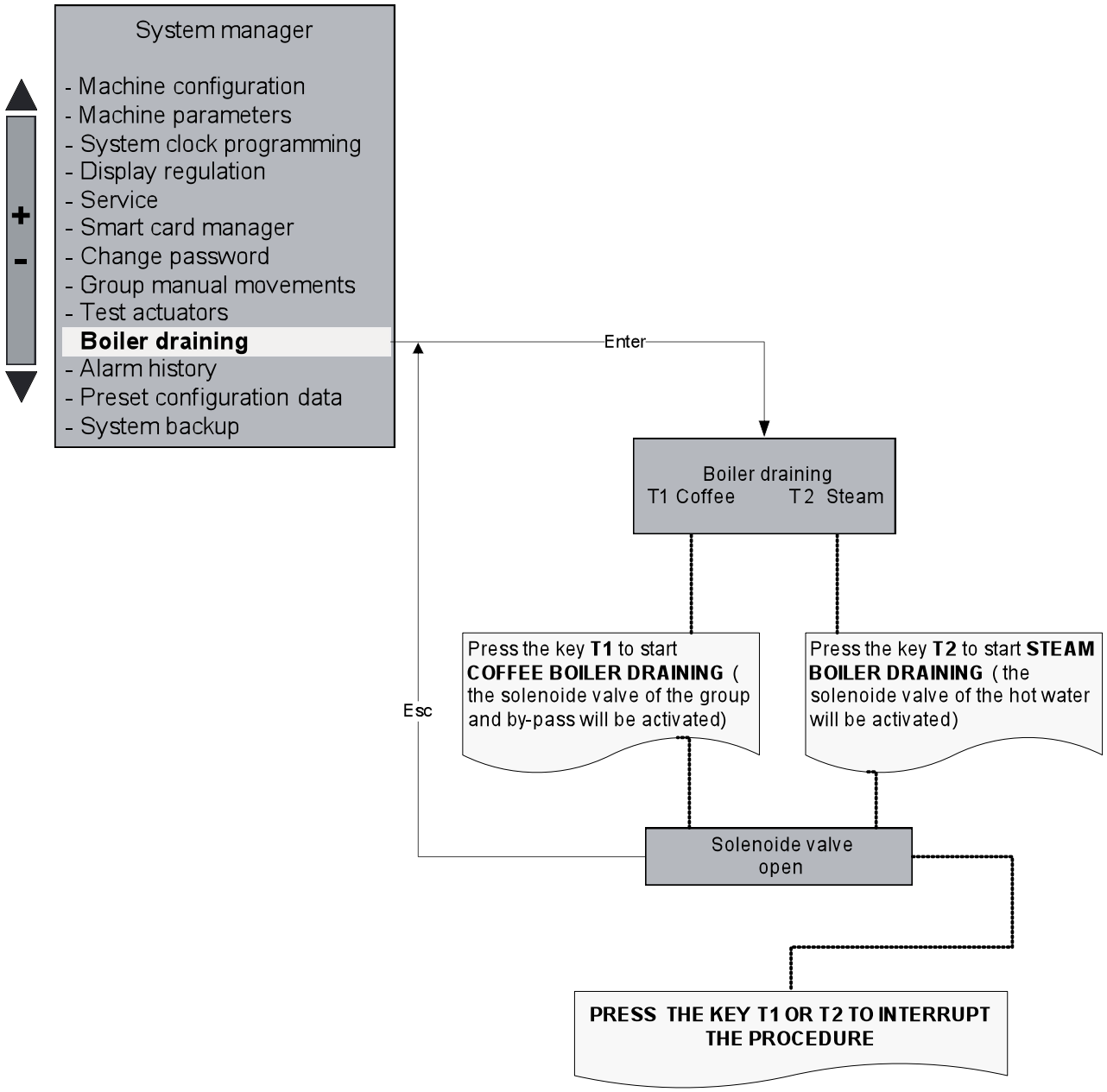


Exhaust fan



WARNING:
a) You can activate more than one actuator at the same time.
b) Once a time-out of 5 seconds has elapsed, the activated actuators will be automatically interrupted.
c) The “Milk pump speed” parameter will be displayed only for machine with milk pump installed.

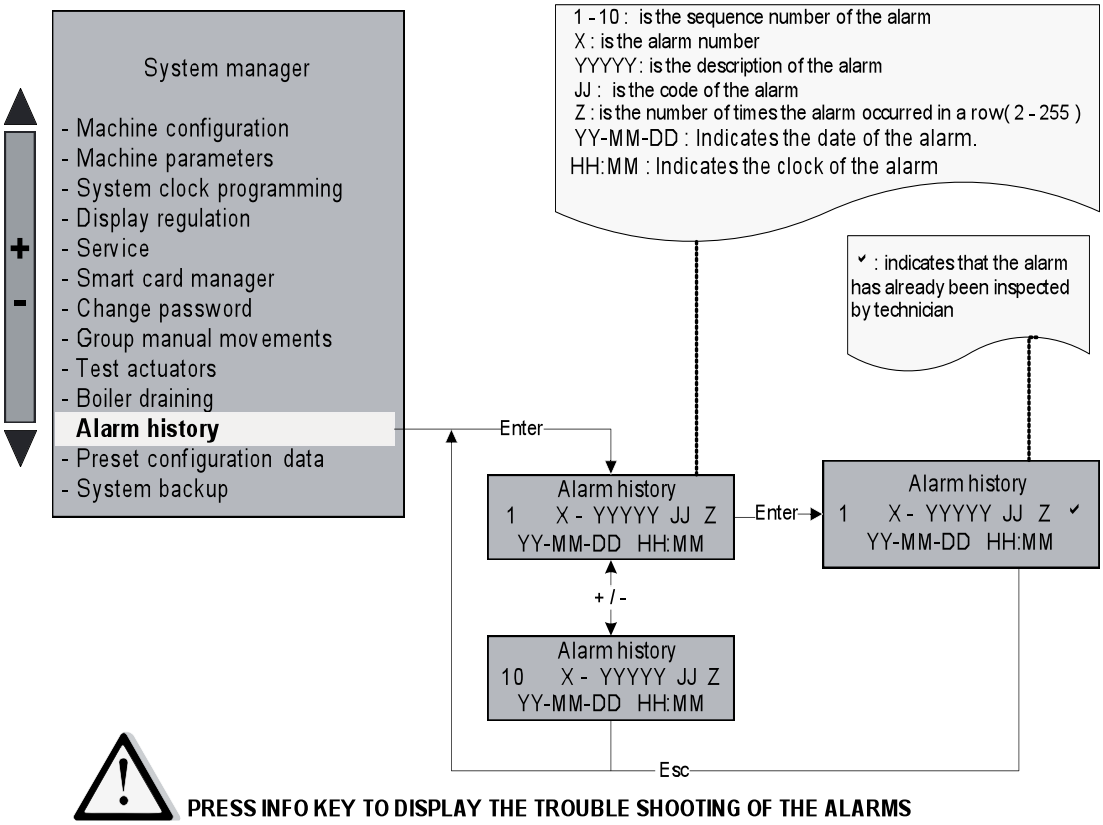
BOILER DRAINING


System manager
- Machine configuration
- Machine parameters
- System clock programming
- Display regulation
- Service
- Smart card manager
- Change password
- Group manual movements
- Test actuators
Boiler draining
- Alarm history
- Preset configuration data
- System backup
+
-
Enter
Esc
Boiler draining
T1 Coffee T2 Steam
Press the key T1 to start COFFEE BOILER DRAINING (the solenoide valve of the group and by-pass will be activated)
Press the key T2 to start STEAM BOILER DRAINING (the solenoide valve of the hot water will be activated)
Solenoide valve open
PRESS THE KEY T1 OR T2 TO INTERRUPT THE PROCEDURE

WARNING:

A) After the boiler draining procedure,when the machine is turned back on, the boilers charge will be carried out according to the procedure described in the chapter “Starting up procedure”

ALARM HISTORY


System manager
- Machine configuration
- Machine parameters
- System clock programming
- Display regulation
- Service
- Smart card manager
- Change password
- Group manual movements
- Test actuators
- Boiler draining
Alarm history
- Preset configuration data
- System backup
+
-
Enter
1 - 10 : is the sequence number of the alarm
X : is the alarm number
YYYYY : is the description of the alarm
JJ : is the code of the alarm
Z : is the number of times the alarm occurred in a row(2 - 255)
YY-MM-DD : Indicates the date of the alarm.
HH:MM : Indicates the clock of the alarm
✔ : indicates that the alarm has already been inspected by technician
Alarm history
1 X - YYYYY JJ Z
YY-MM-DD HH:MM
Enter
Alarm history
1 X - YYYYY JJ Z ✔
YY-MM-DD HH:MM
+ / -
Alarm history
10 X - YYYYY JJ Z
YY-MM-DD HH:MM
Esc

PRESS INFO KEY TO DISPLAY THE TROUBLE SHOOTING OF THE ALARMS

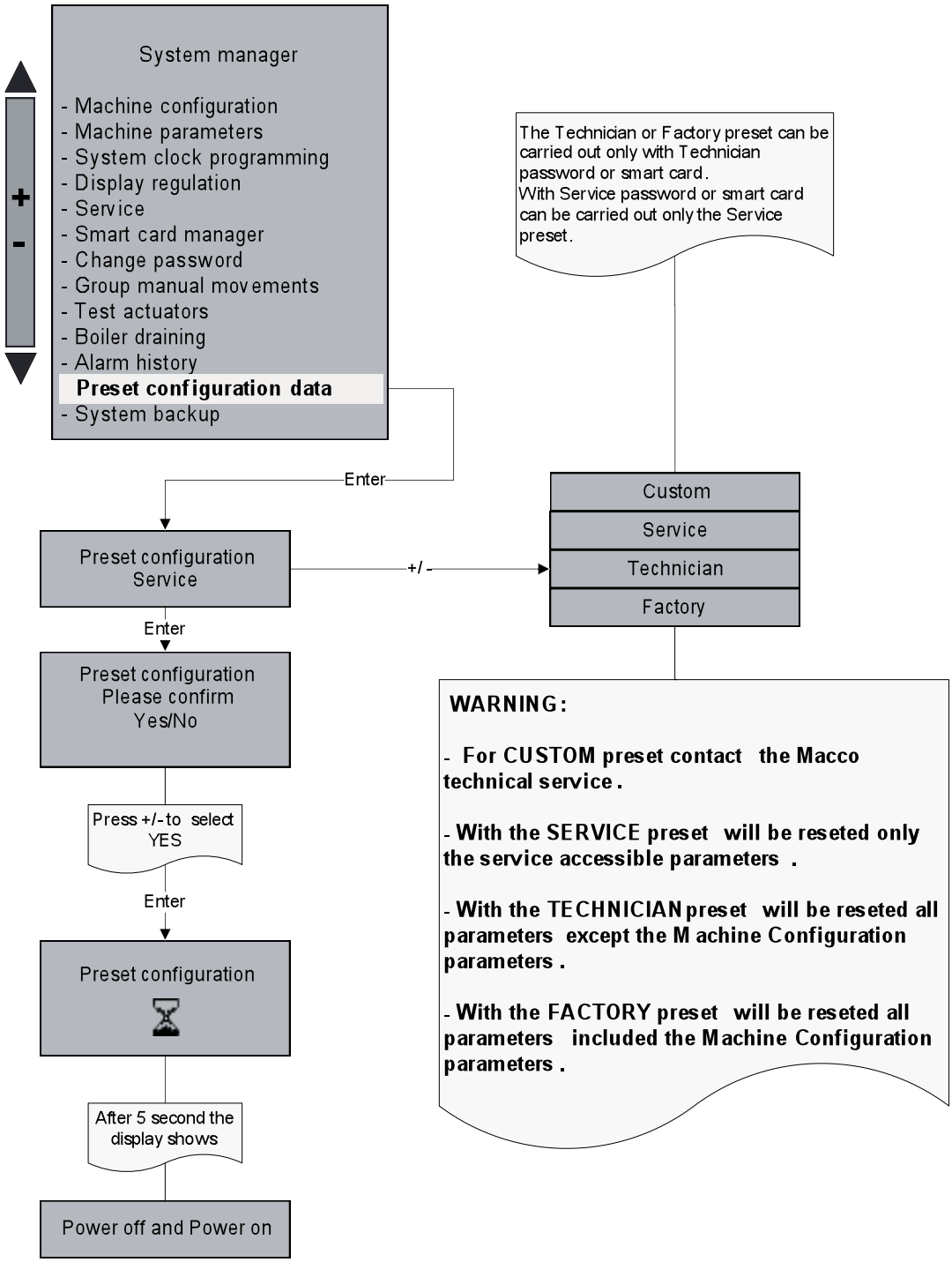
ALARM DETAILS	ALARM CODE
NO H. MOTOR PULS	10
NO L. MOTOR PULS	11
H. MOTOR ERROR	12
L. MOTOR ERROR	13
FILLING UP T.O.	32
COFFEE HEAT T.O.	33
STEAM HEAT T.O.	34
CHECK FLOW LINE	35
COFFEE TEMPERATURE	37
STEAM TEMPERATURE	38
INFUSION T.O.	41
CORRUPTED DATA	60
CLOCK ERROR	63
MOTOR BLOCK	65
TRASPONDER PCB	66
COIN VALIDATOR ERROR	70
CHANGE H2O FILTER	90
GROUP MAINTENA.	91
GRINDER MAINTENA.	93
TOO MUCH COFFEE	15
MAINTENANCE	92

Please Note:

a) The maximum alarm number the machine can save is 10.
b) To reset the alarm data memory, carry out “Preset Configuration Data” procedure.

Press the N°7 Enter key to return to the previous environment and/ or exit.

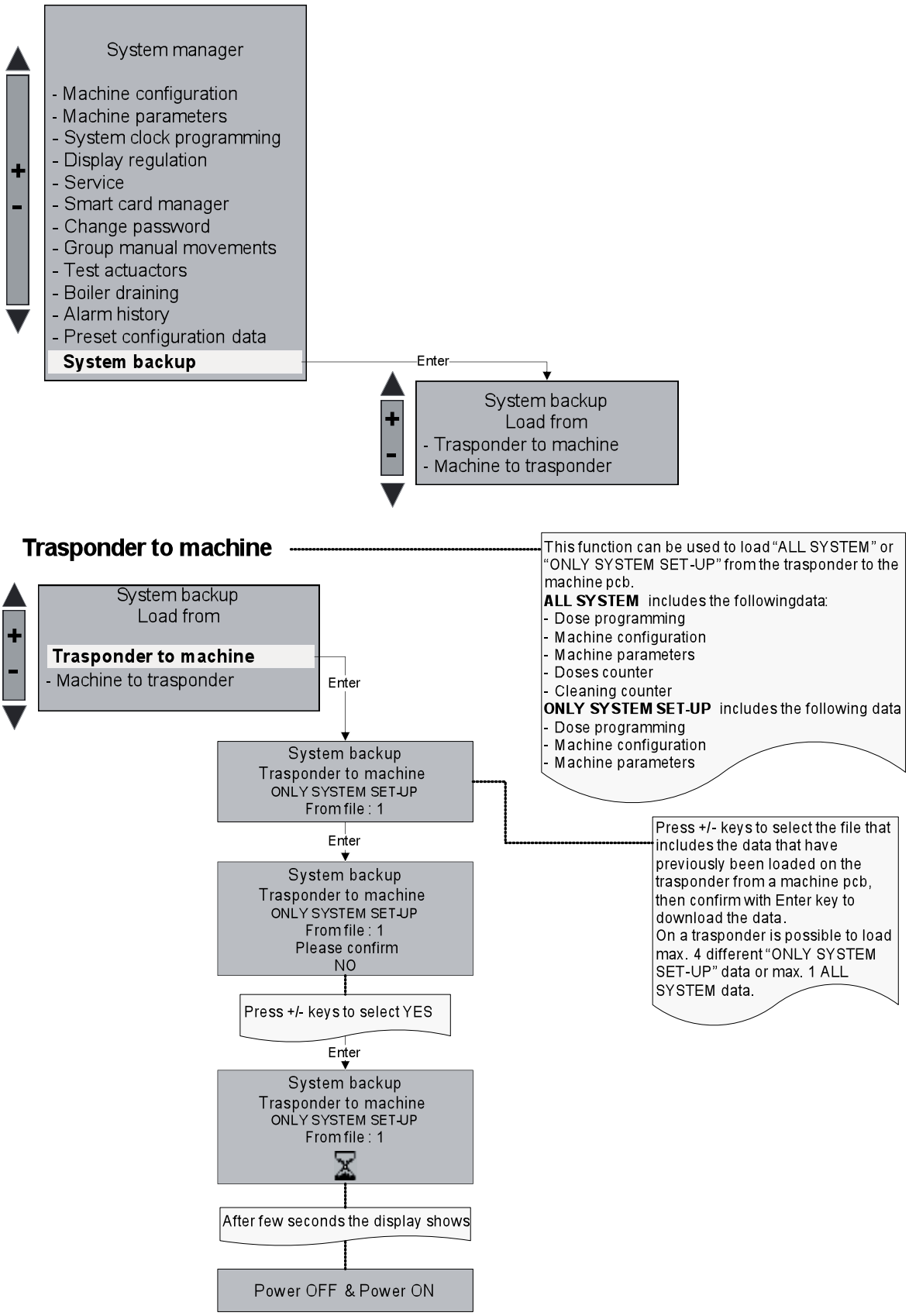
PRESET PARAMETERS


System manager
- Machine configuration
- Machine parameters
- System clock programming
- Display regulation
- Service
- Smart card manager
- Change password
- Group manual movements
- Test actuators
- Boiler draining
- Alarm history
Preset configuration data
- System backup
+
-
The Technician or Factory preset can be carried out only with Technician password or smart card.
With Service password or smart card can be carried out only the Service preset.
Enter
Custom
Service
Technician
Factory
Preset configuration Service
+/-
Enter
Preset configuration Please confirm Yes/No
Press +/- to select YES
Enter
Preset configuration
After 5 second the display shows
Power off and Power on
WARNING:
- For CUSTOM preset contact the Macco technical service.
- With the SERVICE preset will be reseted only the service accessible parameters .
- With the TECHNICIAN preset will be reseted all parameters except the Machine Configuration parameters .
- With the FACTORY preset will be reseted all parameters included the Machine Configuration parameters .

With this function, all the set up values, machine counters and passwords take the default values set up by the manufacturer.

PLEASE NOTE:
A -By power OFF and power on, it is meant clearing and giving voltage to the machine.

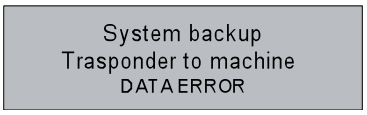
SYSTEM BACKUP


System manager
- Machine configuration
- Machine parameters
- System clock programming
- Display regulation
- Service
- Smart card manager
- Change password
- Group manual movements
- Test actuactors
- Boiler draining
- Alarm history
- Preset configuration data
System backup
Enter
System backup
Load from
- Trasponder to machine
- Machine to trasponder
Trasponder to machine
This function can be used to load "ALL SYSTEM" or "ONLY SYSTEM SET-UP" from the trasponder to the machine pcb.
ALL SYSTEM includes the followingdata:
- Dose programming
- Machine configuration
- Machine parameters
- Doses counter
- Cleaning counter
ONLY SYSTEM SET-UP includes the following data
- Dose programming
- Machine configuration
- Machine parameters
System backup
Load from
Trasponder to machine
- Machine to trasponder
Enter
System backup
Trasponder to machine
ONLY SYSTEM SET-UP
From file : 1
Press +/- keys to select the file that includes the data that have previously been loaded on the trasponder from a machine pcb, then confirm with Enter key to download the data.
On a trasponder is possible to load max. 4 different "ONLY SYSTEM SET-UP" data or max. 1 ALL SYSTEM data.
Enter
System backup
Trasponder to machine
ONLY SYSTEM SET-UP
From file : 1
Please confirm
NO
Press +/- keys to select YES
Enter
System backup
Trasponder to machine
ONLY SYSTEM SET-UP
From file : 1
After few seconds the display shows
Power OFF & Power ON

PLEASE NOTE:
- By power OFF and power on, it is meant clearing and giving voltage to the machine.

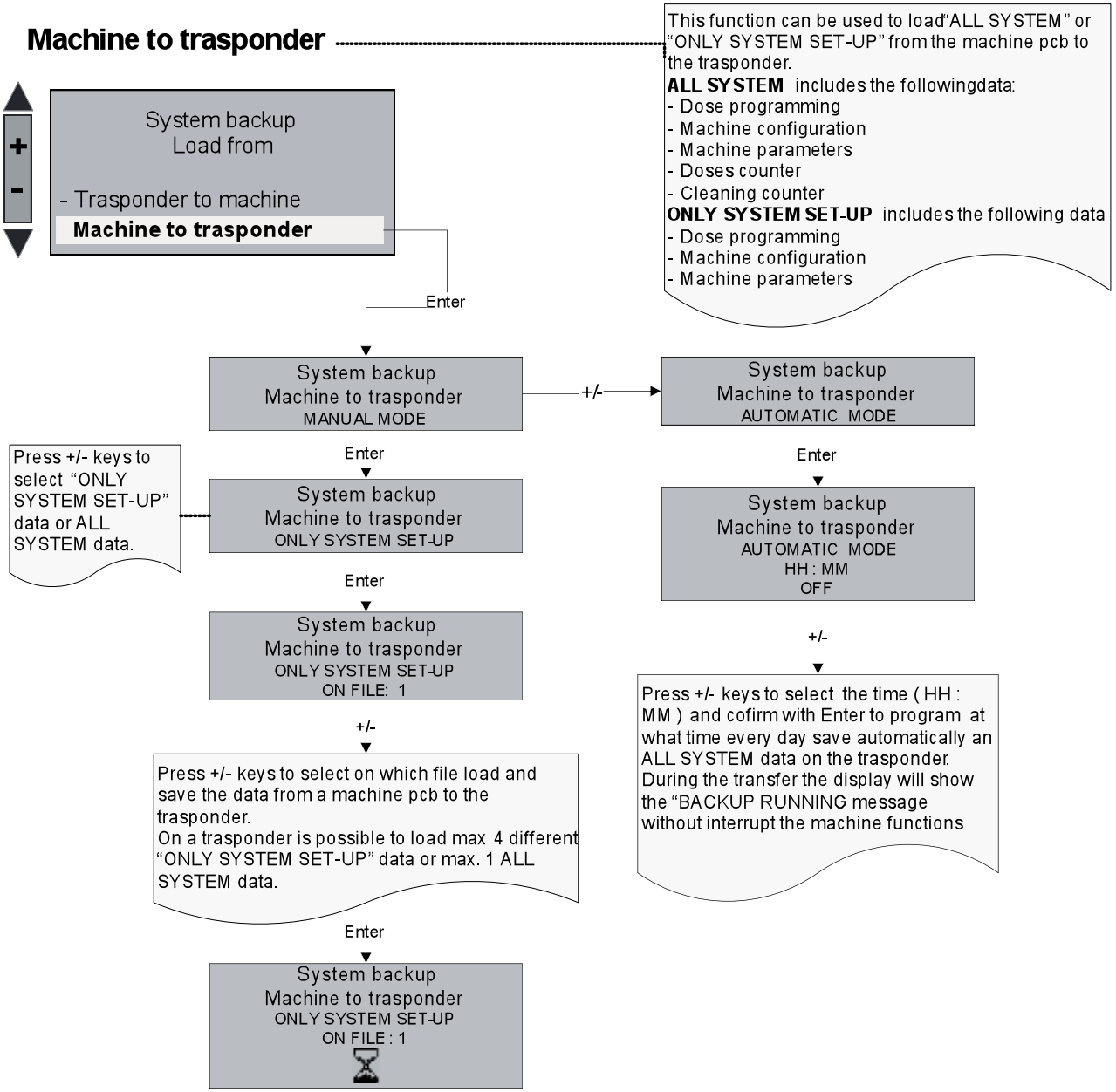
PLEASE NOTE:

A - if on a trasponder any data has not been saved , and you try to carry out a load from " TRASPONDER TO MACHINE", the display shows :



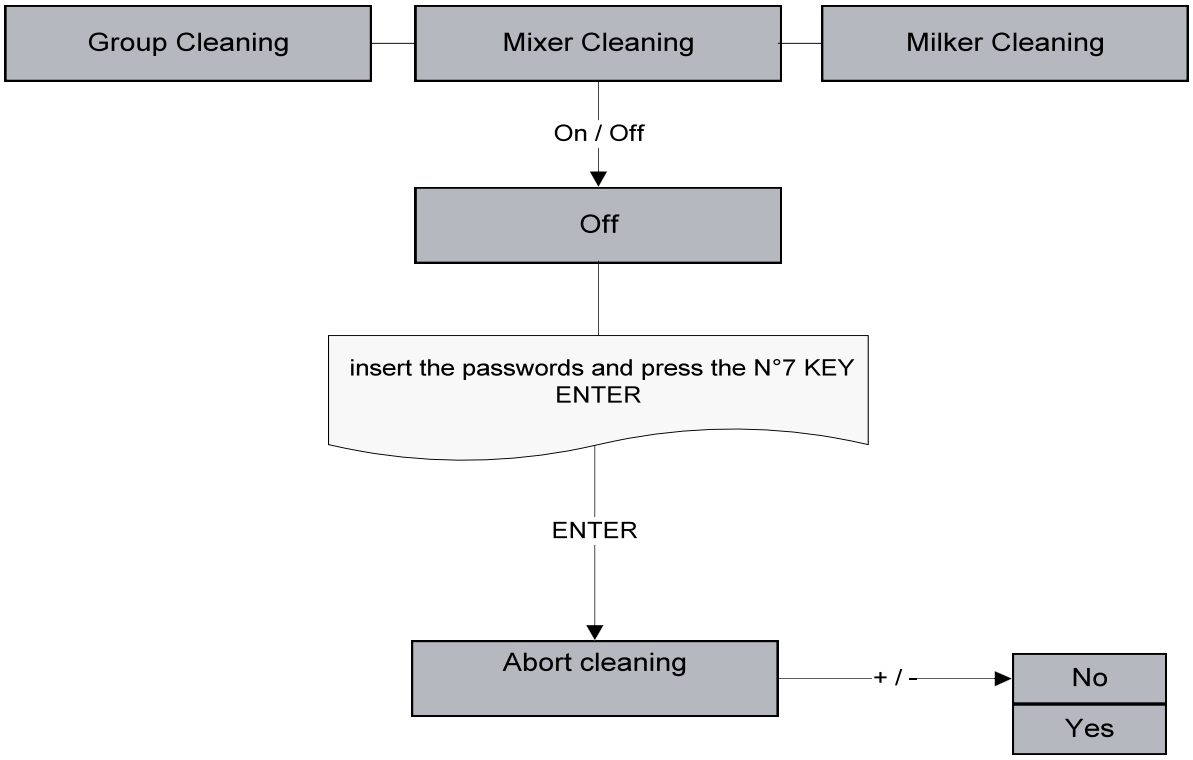
B- If the data saved on the trasponder have been loaded from a version software different from the software machine the display will show :

· See the "TROUBLE SHOOTING" paragraph for further information .


Machine to trasponder
This function can be used to load"ALL SYSTEM" or "ONLY SYSTEM SET-UP" from the machine pcb to the trasponder.
ALL SYSTEM includes the followingdata:
- Dose programming
- Machine configuration
- Machine parameters
- Doses counter
- Cleaning counter
ONLY SYSTEM SET-UP includes the following data
- Dose programming
- Machine configuration
- Machine parameters
+
-
System backup
Load from
- Trasponder to machine
Machine to trasponder
Enter
System backup
Machine to trasponder
MANUAL MODE
+/-
System backup
Machine to trasponder
AUTOMATIC MODE
Enter
Enter
Press +/- keys to select "ONLY SYSTEM SET-UP" data or ALL SYSTEM data.
System backup
Machine to trasponder
ONLY SYSTEM SET-UP
System backup
Machine to trasponder
AUTOMATIC MODE
HH : MM
OFF
Enter
+/-
System backup
Machine to trasponder
ONLY SYSTEM SET-UP
ON FILE: 1
Press +/- keys to select the time (HH : MM) and cofirm with Enter to program at what time every day save automatically an ALL SYSTEM data on the trasponder. During the transfer the display will show the "BACKUP RUNNING message without interrupt the machine functions
+/-
Press +/- keys to select on which file load and save the data from a machine pcb to the trasponder.
On a trasponder is possible to load max 4 different "ONLY SYSTEM SET-UP" data or max. 1 ALL SYSTEM data.
Enter
System backup
Machine to trasponder
ONLY SYSTEM SET-UP
ON FILE : 1

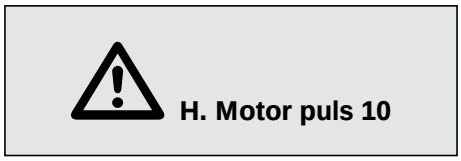
CLEANING PROCESS ABORT

If you want to interrupt the cleaning procedure for group or whisk or milk frother follow the procedure:
(ONLY WITH THE TECHNICIAN OR SERVICE PASSWORD)



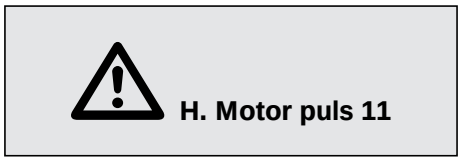
TROUBLE SHOOTING

1) N°10 Time out pulses, upper piston motor.



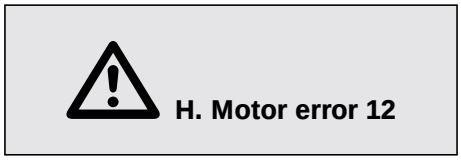
This alarm is visualised on display by code 10.
Causes: the upper motor encoder has not received pulses for 3 seconds, since the motor is not running.
Result: the machine is switched OFF.
Check the following:
1. Wrong or misconnect electric connections
2. Faulty gear motor electric
3. Faulty encoder card
4. Faulty master card

2) N°11 Time out pulses, lower piston motor.



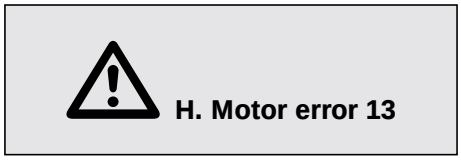
This alarm is visualised on display by code 11.
Causes: the lower motor encoder has not received pulses for 3 seconds, since the motor is not running.
Result: the machine is switched OFF.
Check the following:
1. Wrong or misconnect electric connections
2. Faulty gear motor electric
3. Faulty encoder card
4. Faulty master card

3) N° 12 Upper motor error alarm.



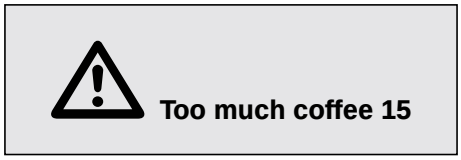
This alarm is visualised on display by code 12
Causes: a mechanical shutdown occurred to the gear motor or the upper piston encoder is not reading the impulses correctly.
Result: the machine is switched OFF.
Check the following:
1) Gear motor defective
2) Gear motor not aligned with the brewing chamber
3) Faulty master card.

4) N° 13 Lower motor error alarm.



This alarm is visualised on display by code 13.
Causes: a mechanical shutdown occurred to the gear motor or the lower piston encoder is not reading the impulses correctly.
Result: the machine is switched OFF.
Check the following:
1) Gear motor defective
2) Gear motor not aligned with the brewing chamber
3) Faulty master card.

5) N° 15 Alarm of too much coffee in the brewing chamber.



This alarm is visualised on display by code 15.
Causes: the upper piston has positioned itself where the wet seal of the piston gasket in the brewing chamber is not guaranteed.
Result: the machine is switched OFF.
Solution: carry out the following controls.
1) Reduce coffee quantity
2) Clean the upper piston gasket from any coffee residue
3) Check the upper piston alignment with the brewing chamber.
4) Faulty encoder
Please Note: before show the alarm the upper piston tries to insert itself into the brewing chamber twice.

6) N° 32 Boiler filling alarm.

This alarm is visualised on display by code 32.
Causes: the stage of boiler fillings has exceeded the maximum time of 2 minutes; the level of the probe (SLC) has not been reached.
Result: the machine is OFF.
Check the following:
1) Level probe (SLC) is dirty, so isolated from the water (the complete filling of the boiler is checked)
2) no water from mains
3) low water pressure
4) faulty motor pump
5) faulty filling solenoid valve
6) incorrect electrical connections (level probe -SLC- misconnected wire).
7) PC board relè

7) N° 33 Coffee boiler time-out temperature alarm .

This alarm is visualised on display by code 33.
Cause: the coffee boiler temperature has reached the minimum value of 60°C.
Result: boiler heating is interrupted and the buttons of coffee-based, milk-based and filter drinks are disabled.
Solution: turn off the machine and then turn it back on. If the alarm sets off again, verify:
WARNING:
a) If the alarm sets off again, wait until the machine reaches the working temperature
b) If the machine is in OFF mode, the display shows:

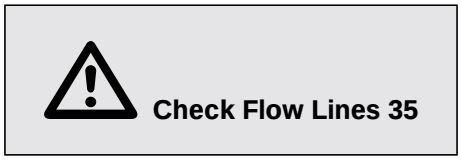
It indicates that the heating up stage of the coffee boiler has exceeded 12' time-out, verify:
1) Faulty temperature probe
2) Temperature probe stopped
3) Faulty TRIAC
7) Faulty master board
8) Turn the machine in OFF mode and then turn it back on with the key N°11 (ON-OFF).

8) N° 34 Steam boiler time-out temperature alarm.

This alarm is visualised on display by code 34.
Cause: the steam boiler temperature has reached the minimum value of 105°C.
Result: boiler heating is interrupted and the buttons of coffee-based, milk-based and filter drinks are disabled.
Solution: turn off the machine and then turn it back on.
WARNING:
a) If the alarm sets off again, wait until the machine reaches the working temperature
b) If the machine is in OFF mode, the display shows:

It indicates that the heating up stage of the coffee boiler has exceeded 12' time-out, verify:
1) Faulty temperature probe
2) Temperature probe stopped
3) Faulty TRIAC
4) The steam boiler safety thermostat has set in (see alarm description of steam boiler safety thermostat)
5) Faulty master board
6) Turn the machine in OFF mode and then turn it back on with the key N°11 (ON-OFF).

9) N° 35 Check flow lines



This alarm is visualised on display by code 35.

Cause: It indicates that when the machine is in stand-by there is a leakage from the coffee hydraulic circuit.
Result: the machine is OFF.
Check the following:
1) leakage from the expansion valve
2) leakage from the third way of the coffee group solenoid valve.
3) leakage from the by pass solenoid valve.
6) leakage from the tubes of the coffee hydraulic circuit
7) leakage from the no-return valve

10) N° 37 Coffee boiler temperature alarm.

This alarm is visualised on display by code 37.
First case: the temperature inside the coffee boiler has reached the limit value of 105°C (221°F) or more.
Result: boiler heating is interrupted and the buttons of coffee-based, coffee +milk-based and filter drinks are disabled.
Solution: turn OFF the machine. Replace the TRIAC of the heating element coffee boiler. Turn the machine ON.
Second case: the temperature probe is defective. The probe sends the following signal to the pcb: 0 Ohm.
To check the temperature the probe sends to the pcb press key no. 15 without any smart card into the slot
Result: boiler heating is interrupted and the buttons of coffee-based, coffee+ milk-based and filter drinks are disabled.
Solution: turn OFF the machine. Replace the temperature probe. Turn the machine ON.
Third case: the temperature probe is defective. The probe sends the following signal to the pcb: 154 Ohm (short circuit).
To check the temperature the probe sends to the pcb press key no. 15 without any smart card into the slot
Result : boiler heating is interrupted and the buttons of coffee-based, coffee+ milk-based and filter drinks are disabled.
Solution:Turn OFF the machine. Replace the temperature probe. Turn the machine ON.

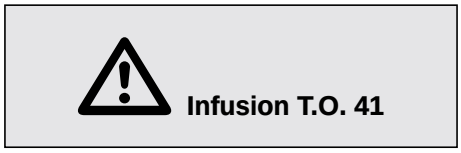
11) N° 38 Steam boiler temperature alarm.

This alarm is visualised on display by code 38.
First case: the temperature inside the steam boiler has reached the limit value of 129°C (264.2°F) or more.
Result: boiler heating is interrupted and all dose buttons are disabled.
Solution: turn OFF the machine. Replace the TRIAC of the heating element steam boiler. Turn the machine ON.
Second case: the temperature probe is defective. The probe sends the following signal to the pcb: 0 Ohm.
Result: boiler heating is interrupted and all dose buttons are disabled.
Solution: turn OFF the machine. Replace the temperature probe. Turn the machine ON.
Third case: the temperature probe is defective. The probe sends the following signal to the pcb: 154 Ohm (short circuit).
Result: boiler heating is interrupted and all dose buttons are disabled.
Solution:turn OFF the machine. Replace the temperature probe. Turn the machine ON.

12) N° 40 Flowmeter alarm.

This alarm is visualised on display by code 40.
Cause: the flowmeter is not sending signals to the control unit within a time-out of 5 seconds.
Result: delivery continues up to a time-out of 120 seconds or until the selected key is pressed.
Check the following:
1) No water from mains (coffee is not dispensed)
2) clogged group piston filters (coffee is not dispensed)
3) faulty group solenoid valve (coffee is not dispensed)
4) clogged inlet filters (coffee is not dispensed)
5) blocked flowmeter (coffee is not dispensed)
6) or faulty flowmeter (coffee dispensed continuously)
7) faulty electrical connection (coffee dispensed continuously).
Note: If the coffee is dispensed continuously, use the machine as if it were manual: press the required key to start up the dose, then press the same key to stop the dose being dispensed, after checking the amount in the cup.

If dispensing continues until the above mentioned time-out of 120 seconds, the dispensing will be stopped and display shows:



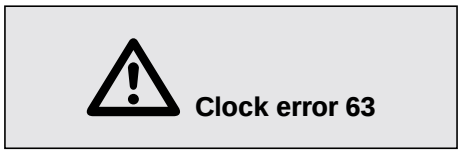
This alarm is visualised on display by code 41.
The message signals that a time-out problem of the flowmeter occurred.
At the next dose the message will be cancelled if dispensing is carried out correctly.

13) N° 60 Corrupted data alarm.

This alarm is visualised on display by code 60.
First case: This alarm is visualised during machine functioning.
Cause: incorrect operating data in machine memory.
Result: machine shutdown.
Solution: carry out the following controls.
1) Verify programming data relevant to the operation that is being carried out. They might be varied and therefore the machine does not recognise the new data.
2) Carry out "PARAMETERS PRESET" procedure (see chapter system programming configuration data preset).

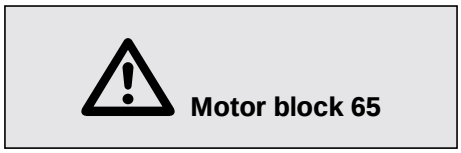
Second case: software programming values or data incorrect, data inserted by means of P.C. programming incorrect.
Result: machine shutdown.
Solution:
1) Carry out "PRESET CONFIGURATION DATA" procedure
2) Insert new software by means of P.C.

14) N° 63 Clock error.



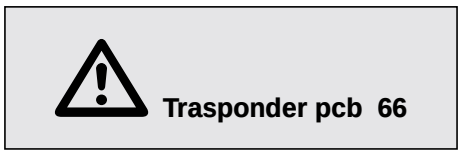
This alarm is visualised on display by code 63.
Solution: check the following:
a) run down battery
b) faulty master board

15) N° 65 Motor block alarm.



This alarm is visualised on display by code 65.
Causes: a mechanical block occurred to the Mixer , Dispenser or Milk pump motors.
Result: the machine is switched OFF.
Check the following:
1) Mixer motor defective
2) Dispenser motor defective
3) Milk pump moptor defective

16) N° 66 Trasponder PCB alarm.



This alarm is visualised on display by code 66.
Solution: check the following:
1) Transponder cable
2) Transponder p c board defective
3) Faulty master board

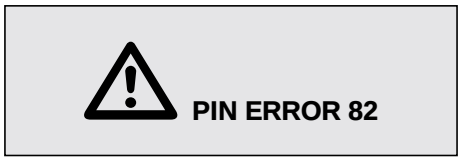
17) N°80 Sim card alarm (only for machine with GSM Modem kit)

This alarm is visualised on display by code 80.
Solution: check the following:
a) SIM card not inserted into GSM Modem
b) faulty SIM card.
c) SIM card not properly inserted.
d) faulty GSM Modem .

18) N°81 Modem GSM alarm (only for machine with GSM Modem kit)

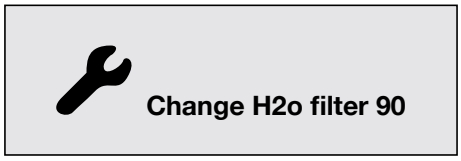
This alarm is visualised on display by code 81.
Solution: check the following:
a) check the power supply of the gsm modem installed in the coffee machine.
b) check that the serial cable is properly connected in the gsm modem and in the master board (CN 16).

19) N°82 PIN of the modem gsm alarm (only for machine with GSM Modem kit)



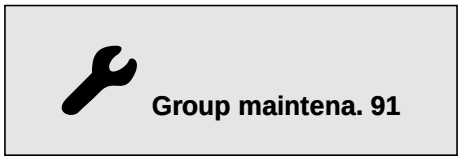
This alarm is visualised on display by code 82.
Solution: check that the PIN number programmed in the parameters “GSM: SIM CARD PIN” is the same as the Sim card inserted in the gsm Modem .

20) N° 90 Water softener alarm.



This alarm is visualised on display by code 90.
Cause: the flowmeter has reached the maximum value of XXXXX litres of previously programmed water, which may be dispensed.
Result: none.
Solution: renew the softener salts. To cancel the alarm, see the Info -Reset paragraph for further information.
Note: this alarm does not block dispensing. The softener alarm can be excluded by setting the litre value to zero (see Service - Maintenance set-up paragraph).

21) N° 91 Group maintenance alarm.



This alarm is visualised on display by code 91.
Cause: the group has reached the number of programmed cycles (see Service chapter).
Result: none.
Solution: check the group and cancel the alarm following the procedure of the chapter info reset.

22) N° 92 Machine maintenance alarm.

This alarm is visualised on display by code 92.
Cause: the machine has reached the number of programmed cycles or the inspection date (see Service chapter).
Result: none.
Solution: check or/and replace the wear parts and cancel the alarm following the procedure of the chapter Info reset.

23) N° 93-Tools maintenance alarm.

This alarm is visualised on display by code 93.
Cause: the tools have reached the set up working time (see Service chapter)
Result: none.
Solution: replace the tools and cancel the alarm following the procedure explained in the info reset chapter.

24) Safety valve operation.

Cause: overpressure in steam boiler
Result: the safety valve opened at 1.7-1.9 bars, the steam is conveyed to the drip tray by means of a silicone tube.
Cause: overpressure in the steam boiler or faulty safety valve.
Solution: carry out the following controls.
1) Temperature probe of the boiler (see boiler temperature alarm)
2) Contacts of the electromagnetic switch of the electric element are stacked
3) Replace the safety valve in case it releases steam at a pressure lower than 1.7 bars,

25) Steam boiler Klicson cutoff.

Cause: The temperature of the boiler has reached the limit of 145°C.
Result: the steam boiler heating is interrupted.
Solution: carry out the following controls.
1) Faulty temperature probe
2) Faulty TRIAC of the heating element
3) Faulty klicson
4) Faulty Level probe
5) The water level in the boiler has dropped lower than the heating element.

WARNING:
To activate the safety thermostat, it is necessary to press the button placed at the centre of the thermostat itself.
26) Coffee boiler Klicson cutoff.

Cause: The temperature of the boiler has reached the limit of 120°C.
Result: the coffee boiler heating is interrupted.
Solution: carry out the following controls.

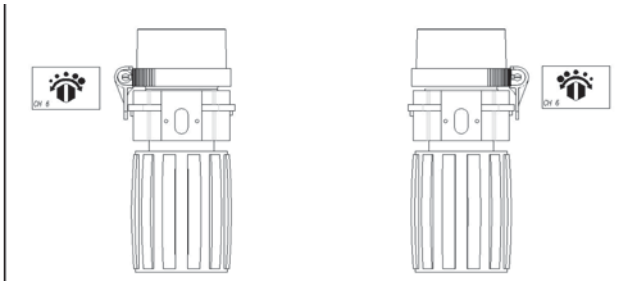
6) Faulty temperature probe
7) Faulty TRIAC of the heating element
8) Faulty klicson
9) No water inlet.

WARNING:
To activate the safety thermostat, it is necessary to press the button placed at the centre of the thermostat itself.

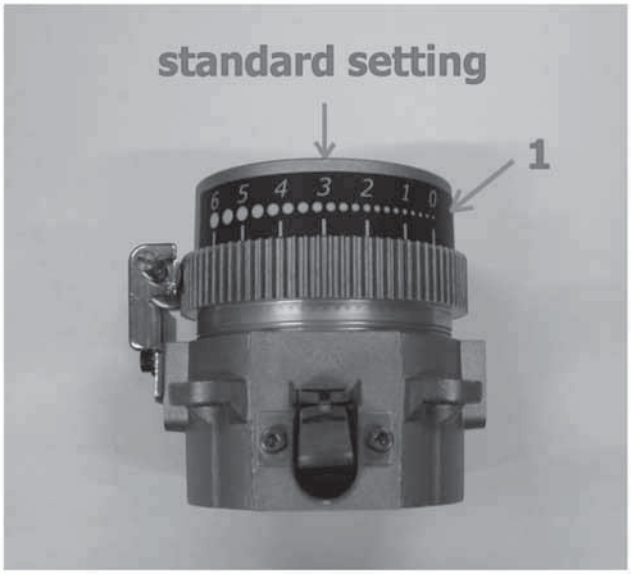
SPECIAL FUNCTIONS FOR MACHINE CALIBRATION

1) Calibrating the coffee dispensing pressure (pump pressure).
To calibrate the coffee dispensing pressure (8-9 Bars), rotate the "MP" pumping body screw (see hydraulic diagram) clockwise to increase it, and anti-clockwise to decrease it.
The adjusting screw is reached through the special hole behind the coffee grounds bin.
The coffee dispensing pressure is displayed on pressure gauge , when the machine is in the coffee dispensing phase

2) Calibrating the coffee grinding degree.
To calibrate the coffee grinding degree, rotate the grinder's adjusting screw (see annex) clockwise to increase it, and anti-clockwise to decrease it.



See the sticker "1" (PICTURE A) for a better setting of the grinder.
The setting position 3 refers to medium coarseness.
If you like to make it coarser turn the adj. screw 4 turns to reach the position 4 (coarse).
If you like to make it finer, turn the adj. screw 4 turns to reach the position 2 (fine).
Turn the adj. screw in the direction indicated by the sticker inside the machine.



PICTUR A

3) Calibrating the flow adjustment of the coffee outlet.
In order to calibrate the dispensing speed and change the amount of coffee cream, turn the screw of the coffee outlet regulator on the upper piston (see hydraulic diagram) clockwise to decrease it and anti-clockwise to increase it.
We recommend making the above adjustment while the coffee is being dispensed.

RECOMMENDATIONS FOR A CORRECT PREVENTIVE MAINTENANCE

The aim of this schedule is to prevent as far as possible equipment from breaking down, through the periodical check-up and replacement of components subject to fair wear and tear, thus reducing service calls and relevant cost in working hours. This schedule is based on the suppliers recommendations along with previous service history on equipment currently out in the field. It is designed to assist in extending the operational life of the equipment.

A. Pre delivery inspection:
We test all machines before shipping using water and at least 1/2Kg of coffee. Therefore we consider our machines ready to installation.

Anyway we suggest to carry out a Pre Delivery Inspection on all machines before deliver them to final customer. PDI can detect inconveniences which may occur during transportation or a long storage. For instance:
- screws and nuts which fit the body-work may become loose;
- flowmeter may be block by dust especially after long storage;
- screws which fit the power supply wires may become loose.

B. 2 or 3 weeks after installation:

Parts to be checked or adjusted:
1. the grinder/s settings
2. the dose settings
3. if daily cleaning of group and milk frother is carried out by the operator.

C. At 4 months' intervals:

Parts to be changed:
1. o-rings for milk frother
2. milk silicone tube for milk frother
3. o-rings for group pistons.
4. Internal mixer gasket

Parts to be cleaned or replaced (check and decide on site):
5. o-rings for the drip tray
6. group upper piston micro screen
7. group lower piston screen
8. milk frother
9. clean the hopper by the oil of the coffee
10. clean the coffee chute by means of a dry brush

Parts to be checked or adjusted:
11. grinder/s setting (coarseness of the coffee powder)
12. air adjustment for milk frother
13. coffee silicone tube
14. pump pressure should be 8-9 bars, check after had closed the coffee flow valve on upper piston
15. coffee boiler expansion valve should leak at 13 bars after a few coffee deliveries
16. front door induction switch
17. grounds beans tray induction switch
18. heating element of the brewing chamber (PTC), if it's not working check the fuse next to the group (yellow label)
19. check the gasket underneath the sweeper (it is glued to the sweeper)

Check the functioning of the machine with the customer:
20. dose settings (setting of milk frother, steam boiler pressure…)
21. that the double coffee spout delivers consistent quantity of coffee in the cup, if not replace it
22. check how many times the group cleaning procedure has been carried out
23. check how many times the milk frother cleaning procedure has been carried out.

CONTROL UNIT LEGEND

A) MASTER BOARD code no. 96.00841 (see electric diagram)

Functions of the fuses:
FU1 value: 4 A 250V. type: D: fuse for mixer motor 1
FU2 value: 4 A 250V. type: D: fuse for mixer motor 2

Please Note:

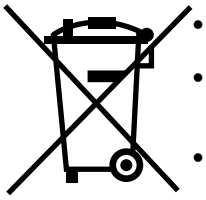
THE OTHER ACTUATORS ARE PROTECTED FROM ELECTRONIC FUSES (PTC – VDR).

B) MASTER BOARD LED LEGEND

LED1 LD1 - Vcc : (red colour) 5 V. DC power supply for microprocessor and electronic component
LED LD2 - VH: (red colour) 24 V. DC main power supply for master board
LED LD3 - VREG : (red colour) 12 V. DC power supply for triac and on/off relays

Information for users in the european community

Pursuant to European Directive 2002/96/EC on electrical waste (WEEE), users the Europan community are advised of the following.



- The symbol with the crossed-out dustbin on the appliance or its packaging indicates that at the end of the product's life cycle, it must be collected separately from other waste.
- Suitable separate collection of the equipment for the subsequent recycling, treatment and disposal contributes to preventing possible negative consequences for the environment and health, and favours the recycling of materials that the unit is made of.
- In accordance with European Directive 2002/96/EC, abusive disposal of the product by the user will result in application of penalties as set forth by local law.

The manufacturer reserves the right to change, without prior notice, the specifications of the equipment illustrated in this publication; the manufacturer declines all responsibility for any mistakes due to printing and/or typing errors contained in this publication.
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